New Zealand

Coal

VOL. 6 No. 2 SEPTEMBER 1961
PRICE: TWO SHILLINGS

This issue features:

Packaged Coal - They ended their days in Rotten Row
New Boiler for Belfast - CASA Service - District News

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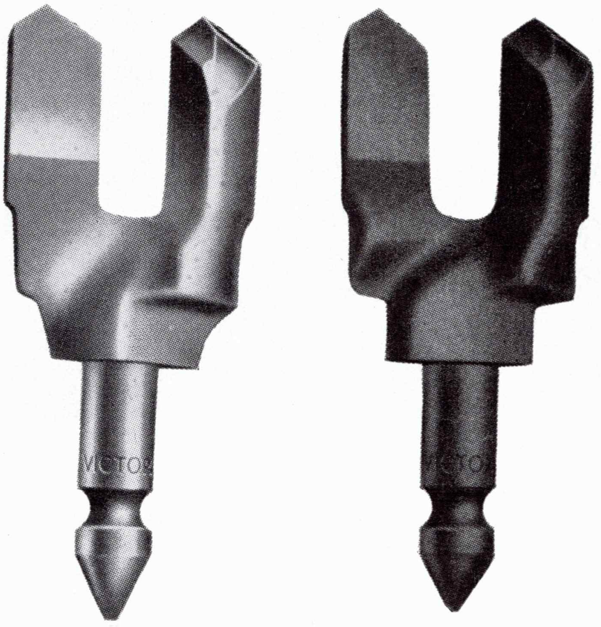

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NEW ZEALAND
Coal

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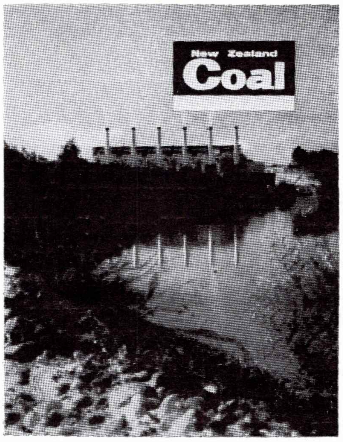


OUR COVER PICTURE

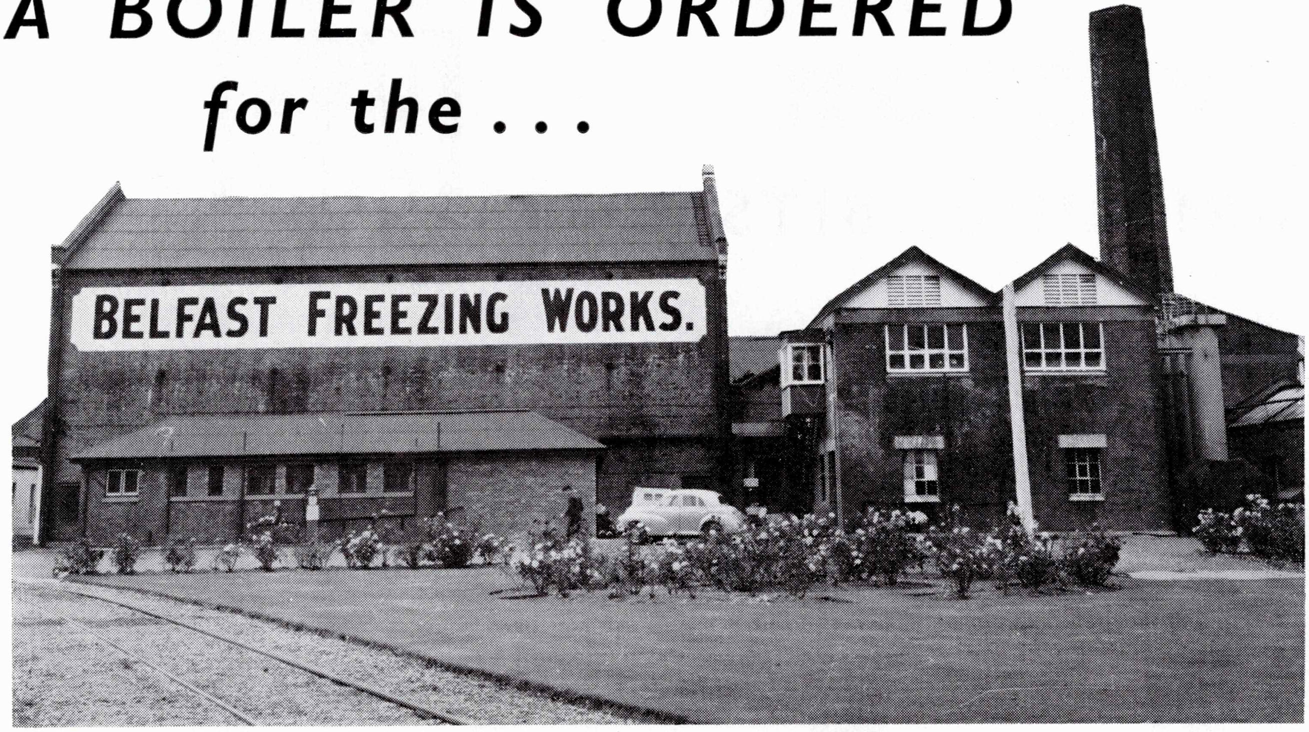
For our cover picture we have chosen the photo that gained the "Picture of the Month" award recently. It is the Meremere Power Station in its beautiful setting on the Waikato River.

This tranquil scene gives no indication of the energy created and harnessed in that great structure standing so quietly on the river bank.

Here are industry and nature in complete harmony.

Printed by Cox & Dawes Ltd., 26 St. Paul Street, Auckland, C.1.

A BOILER IS ORDERED for the . . .



The first boiler for the freezing works at Belfast was off-loaded amongst the sailing ships in Lyttelton harbour in 1883. It was hauled out to Belfast by a team of horses and the journey must have been a strenuous one for all concerned.

That boiler has long since rusted away and the men who fired it have passed on. But that was the beginning of the great freezing works of the Canterbury Frozen Meat Company that stand today at Belfast.

As production went up and up, so the demand for steam crept higher and higher towards the boiler plant capacity, and so in September, 1959, an order was placed for a new boiler. The order went to John Thompson Ltd. who were manufacturing boilers more than half a century before the Belfast works even started, and whose staff of 6000 men work in factories covering 80 acres at Wolverhampton.

A cable was sent by the Wellington Office advising of the order and requesting the tentative programming on the 1960 production schedule. A confirming letter followed giving complete details of the equipment ordered and variations from the offer made by Wolverhampton's tendering department $2\frac{1}{2}$ months before.

The boiler is the latest design of fully welded economic unit suitable for operating at 165 lb. per square inch steam pressure and capable of evaporating 20,000 lb of steam per hour. Mechanical stokers of the forced draught, travelling grate type are fitted to burn coal from Reefton district mines. A combined induced draught fan and dust collector pulls the hot gases through the boiler and discharges them into the chimney, clean and free of grits.

This boiler has to be designed in detail, manufactured, shipped out to New Zealand, installed and steam tested inside 12 months, so Wolverhampton must reserve and place tentative orders for the special certified quality steel plates which are to be used to form the shell of the main pressure vessel.

Meanwhile, Wellington office made application for the import licence without which no official order can be placed overseas. The licence was granted by the Customs Department in mid-October and another cable was sent to Wolverhampton instructing them to proceed with the order.

Wolverhampton contracts department issue fully descriptive instruction sheets to drawing office, management, accounts department, costing department, works department and the New Zealand office and the programme is under way. Orders are confirmed on the steel mills for the heavy plates, and other orders are issued throughout Britain to the manufacturers of the stokers, fans, pumps, instruments, valves, mountings, tubes, soot blowers, water regulators, electric motors, switchgear and other equipment which make up the complete boiler. The drawing office complete all manufacturing drawings and issue copies of the boiler shell construction details to New Zealand for Marine Department approval.

Wolverhampton have scheduled the boiler for completion in May, ready for crating with ancillary equipment and shipping in June.

The $1\frac{1}{8}$ in. steel plates for the boiler ends are marked out to size in the boiler shop, oxy-cut and forged into circular flanged dishes 12 feet in diameter; the flanged edges are machined to the correct thickness and prepared for welding to the cylindrical shell plates; and 150 holes are drilled into each end to carry three-quarters of a mile of tubing which will run through the boiler, forming the heat transfer surfaces.

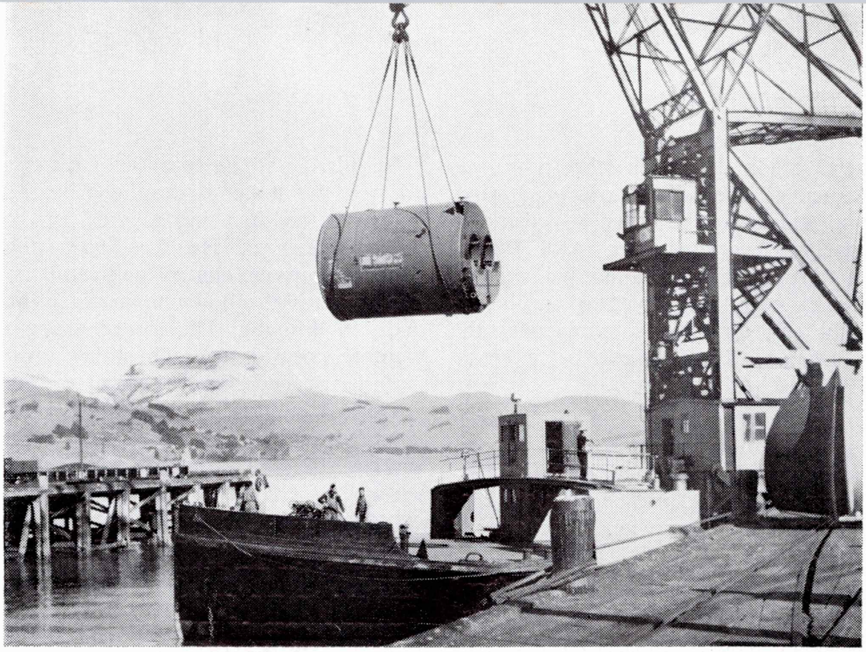
The boiler shell plates are marked out and fed into a powerful plate-rolling machine weighing 190 tons, which rolls them into a 12-foot diameter cylinder. The edges of these plates are flame cut and V-notched suitable for welding. The plates are transferred by overhead crane to the welding shop where the $\frac{7}{8}$ in. thick edges are butted together and 150 feet of seam is welded on an automatic machine while the vessel is rotated and traversed. These welded seams must be perfect and the entire length is X-rayed to detect any flaws inside the metal. Forged corrugated flues of 4 ft. 6 in. diameter are then welded into the shell, together with the heavy longitudinal stay bars and the various pipe connections.

The cooling of the welds has locked up stresses in the plates of this boiler shell and it must now be stress-relieved in a furnace where it is slowly brought up to a dull red heat and held at this temperature for six hours. After cooling, the tubes are fitted and the shell is almost completed. The vessel is sealed, filled with water and pumped up to 300 lb per square inch test pressure before it is stamped satisfactory, painted and made ready for despatch to Liverpool.

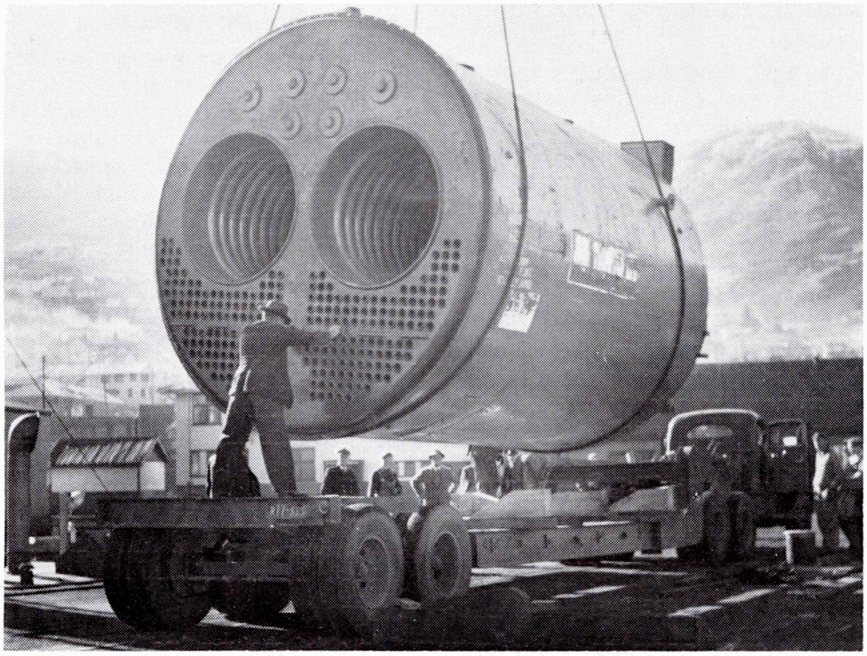
Meanwhile the stokers are being manufactured at another John Thompson works in Leeds. Some 8000 individual parts are being assembled to form this pair of stokers, and these will be transported to Liverpool and shipped in the same vessel as the boilers and other equipment.

The shipping department has checked on the sailing dates of Lyttelton-bound ships and the complete consignment is booked aboard the Blue Star Line's Sydney Star, closing in Liverpool on May 20. There are $51\frac{1}{2}$ tons in 20 crates, and the bare boiler shell weighing 31 tons 15 cwt. is too heavy for the ship's derricks, and so it is lifted aboard by a 50-ton wharf crane.

It is August 8 when the Sydney Star noses to her berth in Lyttelton harbour. Three days later the Lyttelton Harbour Board's floating crane is alongside and the boiler is inched out of No. 3 hold and deposited on a 50-ton capacity low-load transporter on an adjacent wharf. Too large to pass through the Lyttelton rail tunnel, the boiler must be hauled over the Port Hills. It must wait on the wharf until



The boiler is lifted by the Lyttelton Harbour Board floating crane.



Manoeuvring the boiler on to a 50-ton capacity low load transport vehicle.

Here is a boiler being transported by road.

after midnight when the power is turned off the railway overhead wires and these can be lifted to clear the load on the transporter. At 1.30 a.m. on August 12 the boiler has crossed the railway tracks but not until daylight can its tedious climb over the hill begin. No risks can be taken on the road with this load.

On Monday August 15 the boiler is eased off the transporter onto the prepared foundation blocks in the boiler-house at Belfast, and another stage of the project is complete. Erection can now begin.

The boiler is jacked up and placed squarely on the supporting cradles and levelled. The shipping lists show the contents of every crate so they may be opened in the order in which they are needed.

Six weeks later the job is completed with the final connection of the 6 in. steam pipe into the works steam main. The boiler is slowly filled with water and low fires are lit to dry out the brickwork lining in the combustion chamber.

All electric motors are checked for direction and all mechanical equipment is test run and adjusted. By the first week in October, the plant is ready for steam testing. The Marine Department inspector is called in and pressure is slowly raised to 165 lb. per square inch. The safety valves are adjusted to blow off at 170 lb. per sq. in. and then the stokers and fans are run up to maximum capacity. The safety valves must be proven large enough to blow-off the full steaming capacity of the boilers without presure increasing more than 10 per cent. The Marine Department inspector is satisfied and he stamps his approval mark and date into the steel plate of the boiler shell. The main steam stop valve is opened and the new boiler is in service.

Performance is now checked by the John Thompson engineers and the operating staff are instructed in proper handling of the boiler controls.

No smoke

There is no excuse for smoke from this boiler. The instrument panel shows the steam flow output of the boiler, the combustion chamber and the waste gas temperatures, and the draught gauge readings throughout the boiler. The steam pressure gauge shows the firemen whether more steam is required and he turns an indicator dial on the stoker hydraulic drives to increase the fuel input and correct falling pressures. He then turns the Teleflex remote control indicator on the front of the boiler to increase the induced draught. The forced draught damper controls to each stoker must now be opened slightly to balance the increased suction applied by the induced draught. He watches his draught gauges while making this adjustment. Now his CO^2 meter will tell him whether he has the correct balance of draught to match the increased fuel input. He knows that the CO^2 content can be run up to 13 per cent before any trace of smoke shows at the chimney. If the CO^2 indicator settles out at 12 per cent, he can afford to reduce the draught slightly.

Every aspect of combustion is under control. The burnt out ashes accumulate in the furnace flue at the back of the stokers and these are raked out into a chute under each stoker and into a barrow. There is only 4 per cent ash in this coal, so this only takes ten minutes every three hours to clear.

The boiler is designed to extract the maximum amount of heat from the combustion gases before they go to waste up the chimney. Its temperature indicator shows that these gases are being discharged at just under 450°F. This may creep up in a few days when soot accumulates on the heat transfer surfaces of the boiler, but this is remedied by the steam soot blower jets which blast the surfaces clear and the waste gas temperature again drops to normal.

The chief engineer has been recording the coal input and steam output from the boiler, and the figures show that just on 80 per cent of the heat available in the coal is being transferred into the steam. Eighty per cent efficiency! That's a pretty good performance! He remembers the days when the firemen sweated away at the front of the boilers, black clouds periodically poured out of the chimney, and 65 per cent efficiency was good.

Those days are gone. Coal-fired boilers today have entered a new era, with mechanisation and automatic feed. They are now clean, efficient, easy to handle, and, what is most important, they provide all the heat and power required at the most economical running cost.

The Sky in September '61

by I. L. THOMSEN,
Director of the
Carter Observatory, Wellington.

This is a happy month with the promise of the forthcoming summer, even though some rough weather still lies ahead. At 7 p.m. on September 23 the Sun is overhead on the equator and this marks the equinox. On this day, the duration of day and night are nearly equal, and after it the hours of daylight increase in duration and those of night decrease.

If the weather is clear, it is worth trying to detect the planet Mercury near the thin crescent of the Moon on September 12, some two days after New Moon. On the next night the Moon will be near Mars, and between Saturn and Jupiter on the 20th. Jupiter is the brighter of the two objects.

Then follows some interesting arrangements of planets and stars. Mars is close to Spica on September 20 and the next night Mercury is very close to Spica. The arrangement of Mercury, Mars and Spica in the sky should prove most fascinating. Mercury is closest to Mars on September 23.

About the middle of the month at 8.30 p.m. the bright star Altair will be seen due north. It can be recognised readily because of two faint stars on either side of it, making it look like colourless navigation lights of an oncoming aircraft. Much lower down and more to the west, is the bright star Vega, shining with a steely blue colour. Vega is a very hot star shining with a true brilliance one hundred times greater than our Sun.

The Scorpion is now commencing to plunge to the west and in the south-west the Southern Cross lies on its side. On clear evenings when no Moon is present, the Milky Way still provides a most inspiring sight, stretching from the northern horizon, high overhead in the west and finishing in the south.

Nobel reports on :

'EXPLOSIVES IN COAL MINING'

THE HARDNESS AND NATURE OF THE ROCK OR COAL TO BE BLASTED

It is perhaps in connection with this factor that the choice of an explosive becomes most difficult. The main properties of an explosive which are important in this respect are its power, density, and rate of detonation. Relative powers for equal weights are given for explosives of the same type by the ballistic mortar, but the relationships are often completely over-shadowed by effects of difference in density, that is by the relative effects of equal volume of explosive (bulk strength). Where a concentrated effect is desired an explosive of high density with high weight and bulk strength should be used. The lower the density the greater power is spread.

In coal the hardness and texture of the coal is usually a deciding factor in the choice of type of explosive to use. The thickness of the seam is also important. In a thick seam it may be desired to use two rows of holes or to manage with one. In the latter event a stronger explosive would be necessary. The weaker explosives are best in narrow seams. The low density explosives often prove advantageous here and are especially useful when the depth of the under-cut is great compared with the thickness of the seam, except where the seam has a clean roof parting when a gelatinous explosive might prove more satisfactory.

In shaft sinking, stone heading and brushing, strong compact rock is usually met with, requiring a gelatine explosive. In softer strata as in weaker brushings, the conditions are easier and lower density powder type explosives may be used, especially where it is decided to obtain larger blocks of stone for packing.

NATURE OF MATERIAL REQUIRED

Although fragmentation may be advantageous in some instances, for example, for coal required for coking, it is generally desired to keep small coal to a minimum. The low density explosives are especially developed for obtaining large lump coal. Furthermore, owing to the milder action of the low density explosive the coal suffers less as the result of the blast and is therefore less liable to disintegration and consequent production of slack during loading or whilst in transit.

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NE/4/61

FUEL TECHNOLOGIST for C.A.S.A.

The appointment of Mr John Alexander Edwards to the office of fuel technologist to the Coal Advisory Service Association was announced recently.

Mr Edwards is a New Zealander, born in Masterton and educated at Wellington Technical College, Victoria University College and Canterbury University School of Engineering.

He began his professional career in the Ministry of Works, first as an apprentice fitter-turner and later as a draughtsman in the Building Services Section of the Government Architectural Division. His subsequent employers included Auckland Farmers' Freezing Co., where he was Assistant Mechanical Engineer, the Shell Co. of New Zealand, and General Motors, where he became in turn Mechanical Engineer, Design Draughtsman (Holden Australia) and Process Engineer at Frigidaire Ltd., England.

After overseas experience he returned to New Zealand, still as a process engineer for General Motors, and was then successful in being appointed as Fuel Technologist to CASA.

Mr Edwards married a school teacher from South Wales in 1960 and they have one child.

Amongst his interests are swimming and life saving, amateur wrestling, football and mountaineering.

COAL IN ARTARCTICA

Several beds of good quality coal have been discovered about 100 miles from McMurdo Sound, Antarctica.

The coal was found in the beacon sandstone sediments on one of two unnamed mountains forming the rim of the polar plateau south of the head of the Mackay Glacier. The best exposures were on a cliff on the east face of the mountain at an altitude of about 6800 feet.

The coal beds were seen ranging in thickness from a few inches to eight feet. They were separated by layers of shale and sandstone from 20 to 40 feet in thickness. The coal in the thicker beds appeared to be good clean anthracite or semianthracite.

Fragments of coaly material were also found in a conglomerate about 900 feet above the highest coal beds. In addition, a sandstone with abundant fragments and logs of silicified, petrified wood outcrops were seen about 1200 feet above the coal beds. The largest specimen was a log 17 feet long and 15 inches in diameter.

Discovery of coal and petrified wood in the Antarctic is not unique. Both of these materials have been encountered there before. However, most coal finds to date have been reported to be of a low rank or low quality such as lignite and sub-bituminous coal. The significance of the discovery is that it seems to indicate that the quality of the coal to be found on this frozen yet once tropic continent is better than generally believed. The discovery does not mean that there is coal in the Antarctic with an immediate foreseeable economic value. The primary aim of the present coal investigations is to determine when the coal beds might have been laid down by comparing the coal and associated plant fossils with coals and fossils encountered in other areas of the world.

The Mines Department reports..

- The consumption of coal at Meremere Power Station has risen to 615,000 tons which represents nearly 39 per cent of the total North Island demand for coal.
- Sales of coal for domestic purposes, for dairy factories, gas industry, paper making and freezing works have remained fairly constant over recent years, but there have been reduced demands for railway and industry generally.
- Sale of coal in multiwall bags continues to expand.
- Output increased in Waikato, Nelson and Southland between 1959 and 1960. Other areas showed a decrease. Waikato produces more coal than all the other fields combined.
- The swing from dairy farming to meat and wool production in Southland has lessened the demand for coal in that area.
- There were 1,948 "compensatable" accidents in State Coal Mines in 1960.

CASA can help . . .

with your boiler house problem

There is no doubt whatsoever about the success of the new Coal Advisory Service Association. Since its inception, from all over the country enquiries and requests for assistance have poured into the mail box, and as still more users of solid fuel realise the value of CASA, so they will take advantage of the service provided.

Although CASA headquarters are in Wellington, trained engineers and technologists are available to inspect boiler houses and advise on problems connected with coal in any part of New Zealand.

CASA is New Zealand's answer to the overseas fuel threat and this is the organisation to use our own natural resources and protect one of our primary industries.

With the co-operation of users of coal, CASA can also ensure that all coal-burning apparatus is used to its greatest efficiency, and instruct boiler house attendants in the finer points of modern coal-fired equipment.

CASA is now in full operation, fulfilling its duties, proving itself and fully justifying its existence to the satisfaction of coal users throughout New Zealand.

The influence of CASA will be felt wherever coal is being used, and companies contemplating installing new plant, as well as those investigating the efficiency of coal-fired boilers, have not hesitated to call in the services of this most useful organisation to help in their decisions. Even concerns where the boilers are working efficiently have enlisted the aid of CASA to enable them to utilise their plant to greater advantage. One or two smaller companies have asked "Where's the catch? How can CASA give its services free?"

There is no catch, and CASA DOES give its services free.

CASA was established by the Coal Mining Districts Welfare and Research Council, together with representatives of the North and the South Island Coal Merchants' Federations. It is now an autonomous body working independently with a single aim: the utilisation of coal and the efficient working of boiler plant throughout the country. CASA is financed by the coal producers and distributors, and it is a service designed to prove that coal is still a most economical fuel for producing heat, power and steam. That is why advice from CASA is completely free of either financial or moral obligation.

In addition to this, coal is a New Zealand primary industry, and a vital means of ensuring that, should a worsening international situation interrupt the flow of oil from overseas, we can still carry on with coal produced from our own coalfields.

If you have a boiler problem, then the obvious thing to do is call in the assistance of CASA and you'll have the wide experience and knowledge of this organisation at your disposal.

And it costs nothing for the advice. You don't even have to follow it if you don't want to.

One small factory changed its fuel to coal and saved £12 a week in fuel costs. After a visit by a CASA representative the fuel bill was lowered still further.

New ideas and new equipment are constantly being added by manufacturers, and CASA is in the position to keep in touch with new information and ideas that come to hand, and pass these on to operators of coal fired equipment.

So often just a minor adjustment can improve the output of coal-fired plant and increase its efficiency, and even the best engineers do not consider it beneath their dignity to enlist the aid of CASA to give them an additional viewpoint on their boiler problems.

Coal is a most efficient and reliable fuel for industrial and domestic use, and CASA is out to prove it. Do not hesitate to make use of this invaluable organisation. It is there for that purpose. It is possible that a letter to CASA could save you some hundreds of pounds a year, and you have nothing to lose. The address is:

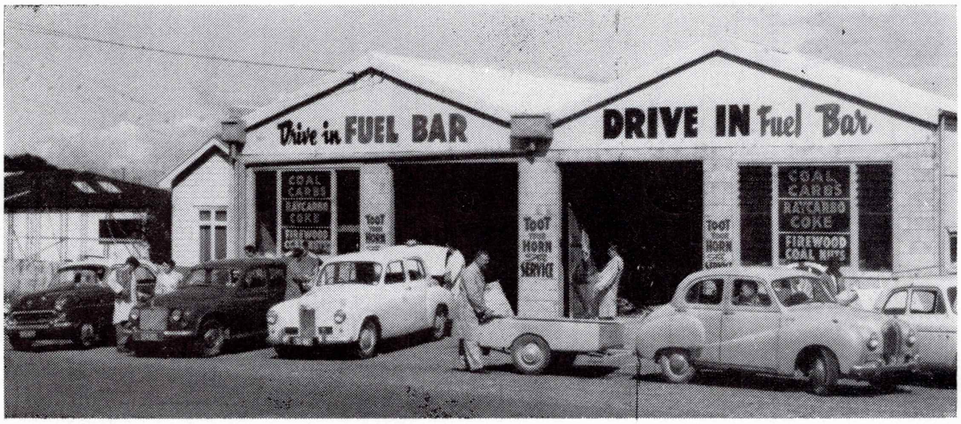
C.A.S.A.,
P.O. Box 3041,
WELLINGTON.

A NEW ERA in FUEL SALES

The Otahuhu Trading Company tells how . . .

We asked Mr George Whye for a story about the pre-packaged fuel business in Auckland . . . AND WE GOT IT.

Mr Whye may be no author (he said that himself) but can he tell a selling story for solid fuel! This is his own story, in his own words, and we think readers will agree that every phrase rings true.



Gone are the days when we were smugly happy with a month's orders on our books.

Orders not delivered are orders lost because today you have so many alternatives, kerosene heaters, electric heaters, etc., but today we also have a vigorous, modern, going-places, young giant — Kari-Pak. Yes, we are enthusiastic about Kari-Pak and we have every reason to be. We have bred him, we have reared him and today we are guiding his path with vigorous enthusiasm and perspicacity.

Just three seasons ago 28lb packs of carbonettes were dribbling through spasmodically to the grocers. Baggers delivered them to grocery wholesale distributors and then they went out to the grocers. I can remember one organisation sending for me and saying, "For heaven's sake get this problem out of our hair. We have coal in the sugar and coke in the butter, and we don't want to see another damn fuel pack in the place."

How different today! Each week we deliver to about 700 grocers in an orderly fashion. Even in the rush period we maintain daily delivery to every suburb. Give us the order Monday morning and we deliver Monday afternoon. Give us the order Monday afternoon and we deliver Tuesday morning. We have 700 agents and are delivering between 10,000 and 12,000 bags a week.

We are aware that most grocers are unable to carry big stocks and need continuous stocking or servicing. The average grocer's shop today is a modern help-yourself affair with very little storage at the back. Some grocers take 100 lots, some big organisations as much as 400 at a time and some just half a dozen. We deliver from Whenuapai in the north to Tuakau in the south. Last season three deliveries of 400 went to Gisborne. Transport costs are proving prohibitive, however, in this area.

We deliver eight fuel products in 22 different Kari-Paks; i.e., carbonettes in 28, 56 and 70 lb, coal and coal nuts in 28, 56 and 70 lb packs, etc. Included in the range are large multiwall bags of kindling wood. This as you can imagine is very popular with city areas that have no access to dry kindling.

We have three large trucks each taking two deliveries a day during June, July and part of August, April one truck, May two trucks, and part of August, September and October one truck.

The "Fuel Bar" was started three years ago and is proving a boon to the public. Sales are at grocers' retail prices. We are most anxious to protect the grocers here as all products are available from them and we do not look for trade which will interfere with them. They are our main customers and we try to keep it down to emergency sales. At the "Fuel Bar" we sell coal, coal nuts, carbonettes in 140lb packs; coke, both No. 2 and No. 4, in 100lb packs; and two or three types of firewood.

Our slogan here is "Just toot and it's in the boot." A customer pulls up outside, there are no parking problems, no backing-in problems; and we are able to serve the customer without him or her leaving the wheel.

Each week we give ten 56lb packs of coal to the "Happiness Club" which is picked up on Saturday morning by the Ladies' Committee and delivered to deserving old people in our district. I mention this just to give you an insight into the convenience of Kari-Pak.

In the June-July-August period we take up to £100 a day. On Saturday morning between 10 and 12 o'clock we have three men serving, plus a cashier. This is a very popular way of obtaining coal on Saturday morning by workers on their way home from work and we are in a large industrial area. There are a number of factories employing big staffs — three freezing works, the railway workshops, two phosphate works and many other industries. I would think this is the largest industrial area in New Zealand.

We are also particularly well sited because of the fact that we are in the centre of a huge building programme; i.e. Otara with a population of over 20,000, Mangere and environs about 10,000 with a whole new city being started in Mangere, Mount Wellington 17,000, Papatoetoe 18,000, Otahuhu 9000, and another 15,000 in the Pakuranga-Howick area.

It is apparent that our Saturday morning advert on 1ZB is producing good results and we see many new faces especially when the weather deteriorates after 10 o'clock.

continued on page 32

PACKAGED COAL

from the Waikato to the Four Square store

Packaged fuel is here to stay. It is a most convenient form of distributing coal or carbonettes, it is handy to store and clean to handle, the neat 28lb multiwall bags are strong and durable and can so easily be disposed of in the fire itself.

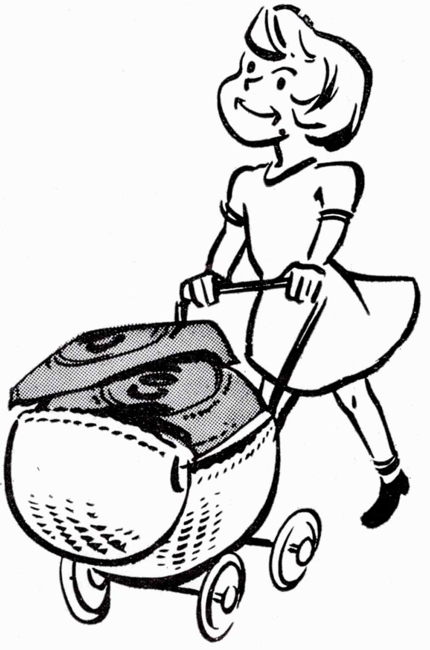
Delivered with the groceries . . .

To find out just how good packaged coal really is, and just how well it is selling, we approached the Four Square organisation who sell their own packaged Waikato coal. The results completely confirmed the faith of the originators of packaged fuel, and showed clearly the value of this means of distributing coal.

We learned from Mr Gates, of Foodstuffs Ltd., that they pick up the bags in bulk from the rail and hold these in their bulk store. Four Square grocers order what they need each week and this is delivered to them all over Wellington and as far north as Waikanae and Upper Hutt.

"What are the sales like?" we enquired.

"Excellent," said Mr Gates. "Excellent!"



One regular customer is a little girl . . .

During this winter they sent out 6 tons of coal and carbonettes a week—480 bags—and this quantity is increasing all the time. Of course that is in the winter because coal is a seasonal product.

The future of packaged solid fuel is well assured, he informed us, and the multiwall bags are so convenient and clean to handle. In fact, packaged coal and carbonettes are cleaner to handle than flour.

That was the wholesale side. To gain a clearer picture we phoned some of the retail stores for their opinions.

Mr Bradnock of Bernie's Four Square Store, Karori, said packaged coal was really taking on. He sells equal quantities of coal nuts and carbonettes and there are no difficulties with supply. Some people pick up the bags in cars, others carry them home, but quite a number just order a bag of nuts or carbonettes with their weekly order and it is delivered with the groceries.

T. F. Keane Ltd., Island Bay, sells four dozen bags of coal to 1½ dozen of carbonettes, and he also said sales are increasing.

In direct contrast to the suburban demand for more coal, one of the city stores, the Aro Street Four Square Store sells 14 bags of carbonettes to six of coal. Perhaps this is because the proprietor is a carbonette enthusiast.

Many flats in the vicinity have no facility for storing coal and packaged fuel is the most convenient for them. He himself has a space heater and his advice is:

"Fill up the heater at night with carbonettes and shut off the draught. In the morning, just stir over the carbonettes and ash, and the fire will flame into life without further attention."

Aro Street also delivers coal with the groceries.

A small store on Mount Victoria, Dale Store Ltd., sells equal quantities of coal and carbonettes. Sales are small but consistent, and mainly to flat dwellers.

Masterton Williams and Co. Ltd., of Johnsonville, were right on the job. Yes, sales were excellent. They sold eight bags of nuts to six of carbonettes, and their sales jumped every time there was a cold snap. The manager thought that a great number of their sales were "fill-ins" while people were waiting for their main order from the coal merchants to be delivered.

Situated right alongside the railway, theirs is a very convenient shop and often on a Friday night a breathless customer will rush in saying, "Give us a bag of coal, quickly!" rush out again, and away in the train.

Mr Puller of Brown's Store, Khandallah, sells quite a bit of coal—particularly carbonettes. He stocks them because he had so many enquiries for them. He finds sales are improving as the idea catches on. Some of his customers order regularly every week.

Out in the Hutt Valley, Mr Goodale of Stack Bros. Supermarket, Naenae, thinks the packaged fuel idea

No complaints about price . . .

"marvellous!" He had just ordered another 24 bags of carbonettes and 18 of coal although sales are nearly equal for each. We inquired if packaged coal really was cleaner to handle than flour. "It is," he assured us. "You can handle bags of coal or carbonettes with your coat on, and you can't do that with flour."

He told us that it was very seldom they had a broken bag, and if that did happen, either he or Mr Stack or one of the staff would take it, and customers received only the perfect bags. Being multiwall bags, they are really quite strong enough to contain the coal or carbonettes without fear of breaking.

Coal is delivered many different ways in the Hutt. Cars, motorscooters, even bicycles are used to take home the coal. Bags are delivered with the grocery orders and one regular customer is a little girl who wheels her pram to the supermarket; they pop in a bag of coal and she wheels it home again.

Packaged fuel is certainly playing a very important part in the coal service. It is convenient for people in flats, it is clean and easy to handle. It is an excellent stopgap between the bulk coal order and delivery, and although it is more expensive to buy this way, no complaints about the price have been received. Apparently the convenience of having the coal delivered in small useable quantities far outweighs the higher cost involved.

Packaged fuel is definitely here to stay.

And rush out again to catch a train . . .

And at the bagging plant in the Waikato...

Just beginning their fifth year of production in the packaging field are Waikato Coal Supplies Ltd, of Riverlea Road, Hamilton.

Packaging is not the major portion of this company's trade but they nevertheless put up 30,000 bags a season.

The 28lb packs of carbonettes, Ray-Carbo (for space heaters), Coalnuts and 14lb packs of coke go as far afield as Taumarunui, Waiuku, Thames and the whole of the Waikato.

Two men only are employed in this work. The machine weighs as it bags.

Asked how the men got through the work, the owner-manager, Mr D. H. Cook, said, "Well, the men and the machinery are just wonderful."

Stores supplied with this service include Four Square, Farmers Trading Co., I.G.A., Self Help, Marriotts, Wallace Supply Stores, firms such as the Loan and Mercantile Agency and individual stores. Apart from the Glen Afton Coal Co. which is now bagging coal nuts only, the firm handles all the trade.

Kerosene Fires

•

The number of fires attributable to domestic kerosene heaters is causing concern to fire authorities, says the explosives and dangerous goods section of the annual report of the Department of Internal Affairs tabled in the House of Representatives yesterday.

It was felt that the issue of a suitable standard specification would do much to prevent accidents caused by faulty design or construction.

Most of the accidents reported to the chief inspector of explosives involved oil-burner fires, kerosene heaters, and vehicle fuel tanks. Few were of much significance.

— Published without comment from
THE DOMINION,
August 31, 1961.

The First Matches

It was hard to believe that until about 1835 a tinder box was the only means in many British homes to provide a fire. The first matches had come from France in about 1810 in what was called an 'instantaneous light' box. This contained a small bottle of sulphuric acid, and some sticks with Chlorate of potash on the end. When dipped in the acid they provided the flame. A Mr Samuel Jones, who lived in the Strand, London, had brought out rather similar Promethean matches in 1828.

It was a John Walker of Stockton-on-Tees who invented the match in the style of today. These 'friction lights' were sold in round tins with a piece of sandpaper through which the head of the match was drawn to produce the flame. The first sale was recorded on April 7, 1827. Though urged to patent the invention, Mr Walker did not think it sufficiently important. So it was the active Mr Samuel Jones who brought out an exact copy and named them lucifers. These early matches were liable to burst into flame inadvertently, often with tragic results, and it was not until 1855 that a Swede invented the safety match.

—from a talk on the B.B.C. by David Stone.

WINDOW DISPLAY SELLS COAL

Auckland firm's attractive publicity for solid fuels

Each year, Winstones in Auckland make a display of solid fuel in their windows, and this year was no exception. The theme chosen was "Alice in Wonderland" and this inspired us to carry the theme a little further. Other firms with exhibits of solid fuel are welcome to send photos of their displays in to Coal Magazine.

Dear little Alice was a child with no malice,
A pretty little girl, and she knew it;
Always with her looking glass, one day it came to pass
That she tripped, and fell right through it.

Now when she arrived on the other side,
She looked around from force of habit;
And to her surprise, there before her eyes
Were a Hatter (mad), a dormouse and a rabbit.

She became a little bolder, looked over her shoulder,
And there with his tusks all shining
Stood a walrus Sir, and a carpenter
With a March hare on his back reclining.

Now the walrus hies from the land of ice,
The carpenter builds houses;
The mad March hare is very rare,
And gentlemen wear trousers.

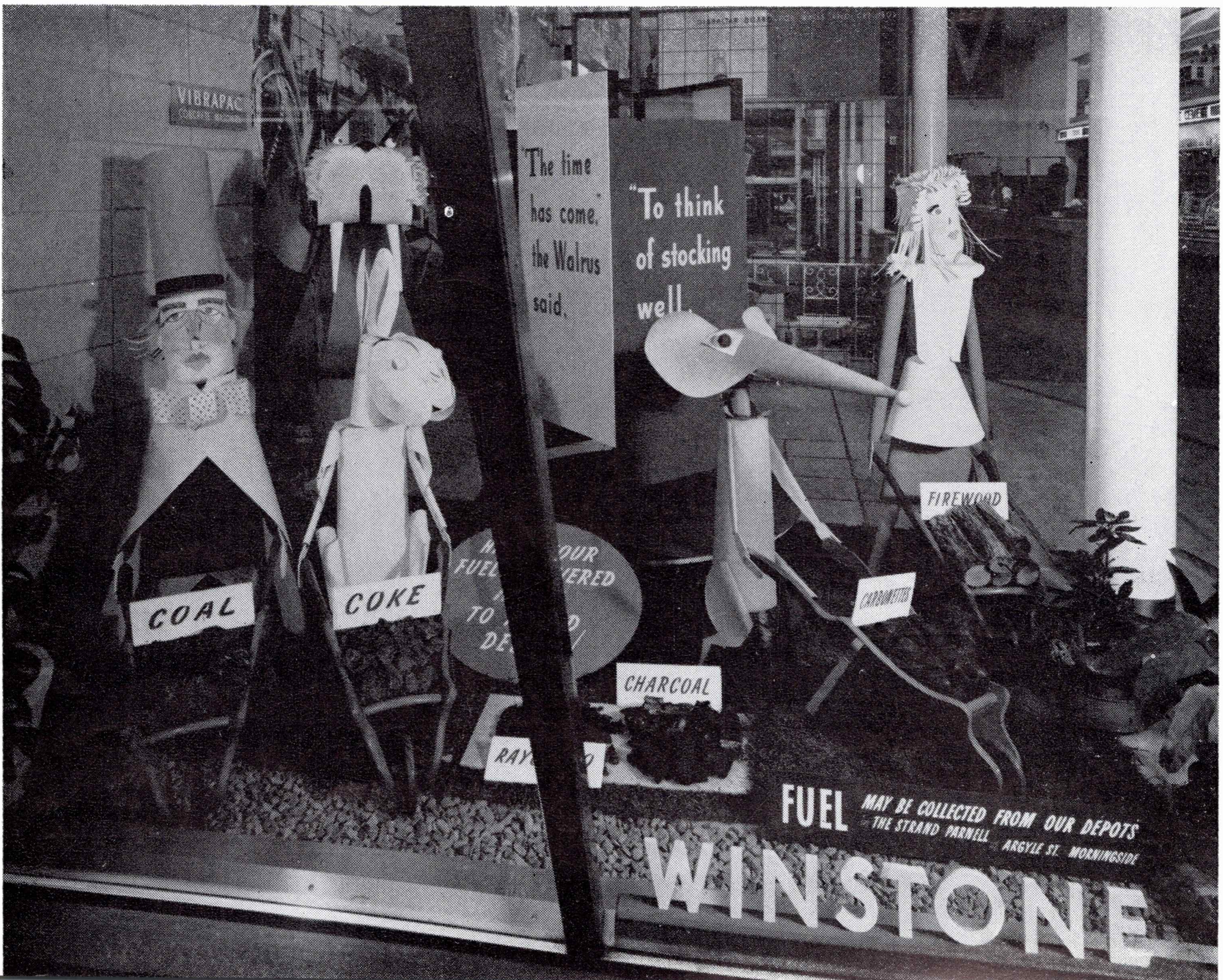
"The time has come," the walrus said,
"To think of stocking well
"In coal, and coke, and carbonettes,
"And fuel that Winstones sell."

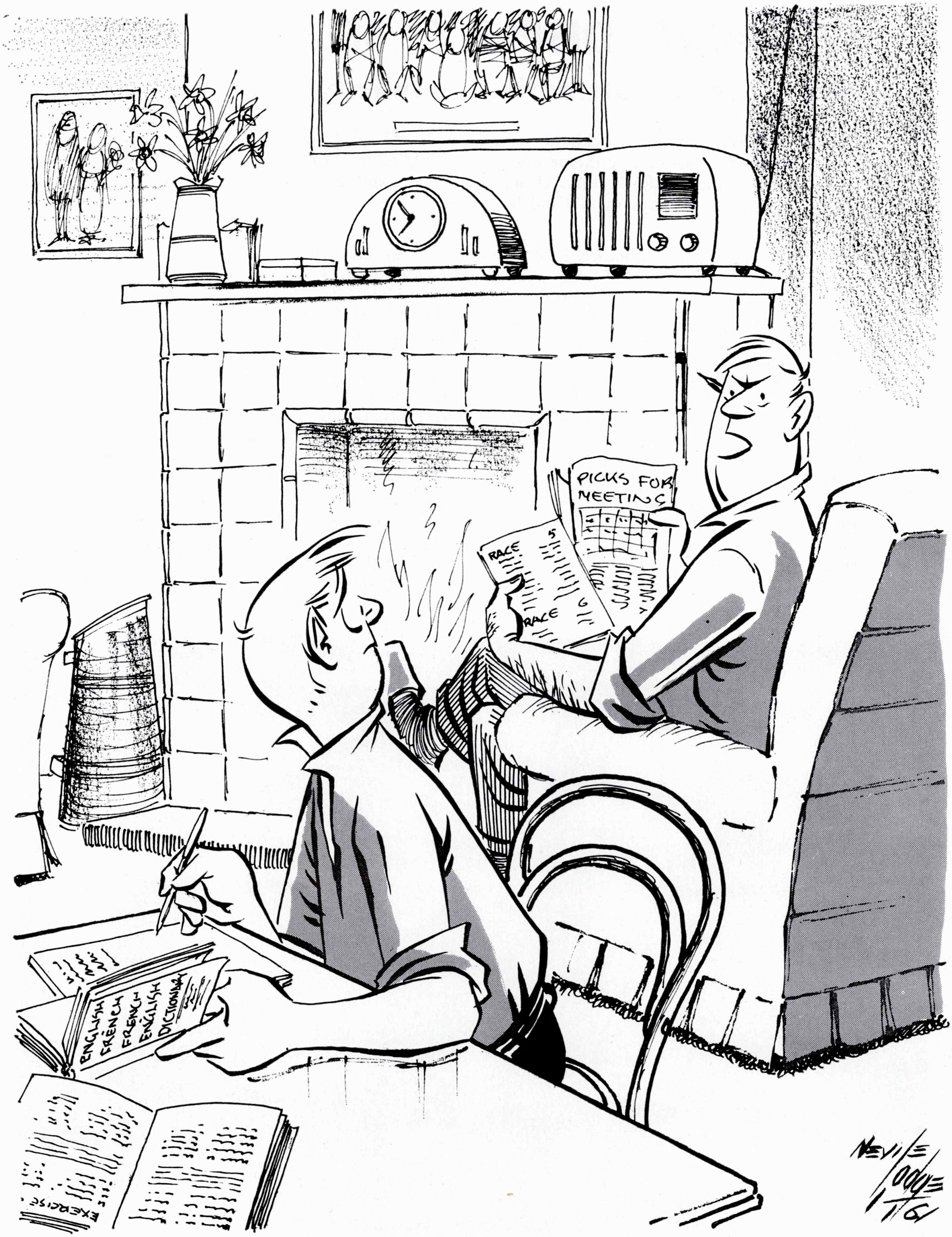
Said Alice, "Wood for the fire is good,"
The rabbit thought coke was better;
Said the dormouse, "Let's use carbonettes,
"I'm sure that won't upset her."

"Of course not," said Alice, "If I lived in a palace
"We'd all sit around the fire together.
"When the flames roar higher from a warm coal fire
"Whoever cares about the weather?"

Now coal and coke are preferred by some folk,
Carbonettes yet another defends;
But wherever you rest, solid fuels are the best
And **coal fires make you warm friends.**

—with apologies to Lewis Carroll, Winstones and our readers.


VIBRAPAC
"The time has come," the Walrus said,
"To think of stocking well.
FIREWOOD
CARBONETTES
COAL
COKE
CHARCOAL
FUEL MAY BE COLLECTED FROM OUR DEPOTS
THE STRAND PARNELL . ARGYLE ST. MORNINGSIDE
WINSTONE



"You're having trouble with French! What about me—I gave five-to-one on 'em in every Test!"

Biggest Open-Cast Coal Operation in Britain . . .

— Old Loch to be mined and reformed

To provide coal for the Lurgi gasification plant at Westfield, the National Coal Board has begun the largest open-cast operation producing bituminous coal in Britain, and probably in the whole of Europe. The site is estimated to be capable of yielding between 20 and 25 million tons of coal, which is equivalent to a working life of 25 years. About one third of the output will be supplied to the Lurgi plant, leaving a substantial balance available for general industrial purposes.

Maps made in the 17th century show the area as having been a loch, and the presence of a small coalfield here is something of a freak. The coals are placed approximately on top of the Millstone Grit, thousands of feet above the succession of the Fife coalfield.

The site is just under $1\frac{1}{2}$ square miles in extent. The total thickness of the coal-bearing strata is about 400 feet, though there is a considerable variation from the outcrops on the outer margin to the deepest hollow in the north where the coals reach a depth of about 700 feet.

It is planned to excavate 125 million cubic yards of material from which 25 million tons of raw coal will be obtained. To enable the coal to be won it will be necessary to remove some 50 million cubic yards of material from the coaling area, ultimately leaving a void. This will be formed into a loch with appropriate landscaping for amenity purposes. The remainder of the area will ultimately be restored to agriculture.

A small amount of open-cast mining was carried out in 1944 by the Directorate of Open-cast Coal Production, but this work was soon abandoned in favour of a large-scale scheme. Work on this started in 1955, and in 1956 contracts were let for the diversion of the Lochty Burn and public services running through the site, and for the construction of a large reservoir to contain the excavated peat and silt at the south-east corner.

The first essential in the development of the mine was to remove the peat and silt covering 72 acres at the southern end of the site. Approximately 4,300,000 cubic yards of peat and sand were removed from this area and deposited through pipes into the reservoir provided. This work was completed by August 1959 and proved to be efficient, rapid in execution and cheap compared with previous methods used in that country for handling peat and running sand.

The actual working of the mine presents some difficulty, owing to its great depth, the varying dip of the coal, and the interbanded nature of the coal and shale seams. It was considered essential to remove a considerable volume of material from the south end of the coaling area and, after consultation with German firms who, in the "brown coal" mines, have experience in the conveyance of overburden, it was decided to remove some 30 million cubic yards and to convey it to some poor quality land nearby where it can be spread by a mobile machine.

Before it reaches the conveyors, some of the overburden must be crushed. Roll crushers have been installed for this purpose. Two hammer crushers have still to be added to bring the equipment up to full capacity. These will be installed and working by the end of 1961. The Lurgi plant began receiving coal from Westfield in December 1960.

In order to process the coal from the mine, it was necessary to construct a disposal centre comprising reception hoppers, two large storage bunkers for the raw coal, filled by means of overhead shuttle conveyors. In addition there is a modern dense-medium type of washer complete with slurry press plant and all the necessary railway loading, storage and marshalling sidings for the washed coal destined for the market and for the Lurgi plant.

The capacity of the washery is rated at 225 tons an hour input. The planned output is 650,000 tons of washed coal per annum, of which something like 140,000 tons will at present be absorbed by the Lurgi plant. The Lurgi demand under stage two of the project, will be raised to about 270,000 tons.

—*from The Scotsman, June* 27, 1961.

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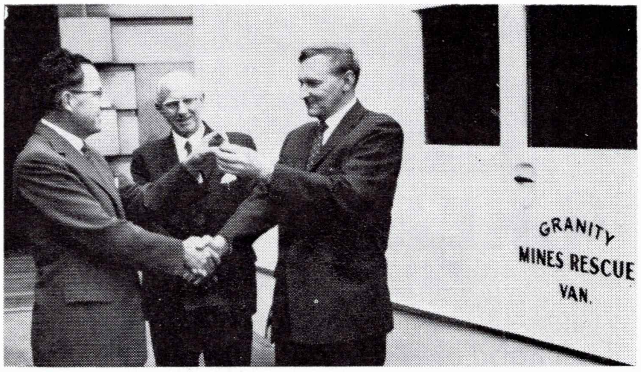
RESCUE VAN FOR GRANITY

A symbolic ceremony, the official presentation of the keys of the new Rescue Van for Granity, was held at Parliament Buildings, Wellington, on Friday, September 1.

The keys were presented to Hon. T. P. Shand, Minister of Mines, by Mr John Greenfield, general manager of Magnus Motors Ltd.

In his presentation speech Mr Greenfield said that he passed over the keys with the conviction that the van would do all that was required of it, and expressed his best wishes for the men it is to serve.

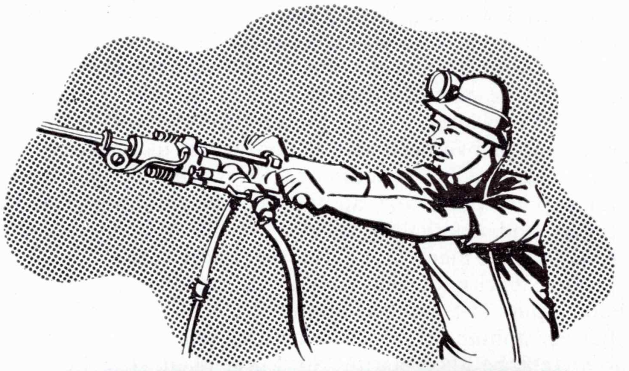
Mr Shand in reply said that the Rescue Van brought home the dangerous nature of the work performed by miners and, while he hoped the occasion for its use would not arise, the van would still be there ready to perform its mission of mercy.

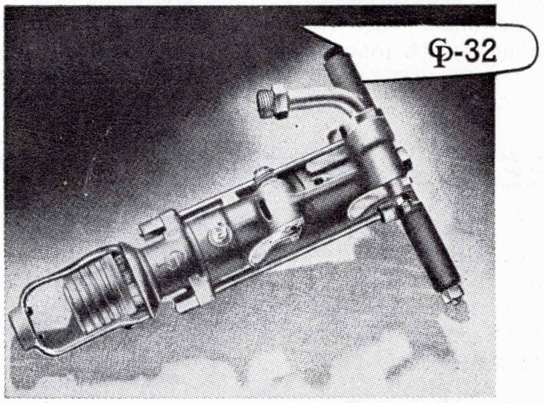


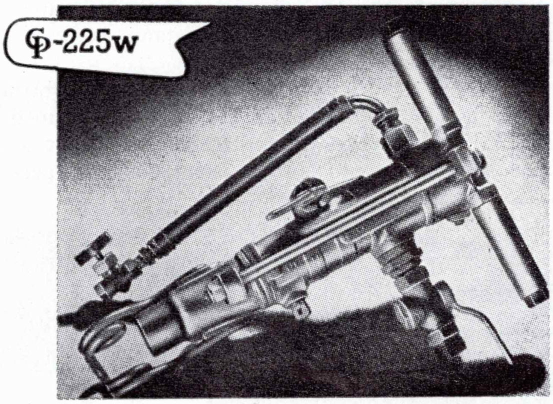
Presentation of Granity Rescue Van keys. Mr John Greenfield, Mr K. L. Anderson and Hon. T. P. Shand.

The van is an Austin T200 model with a two-ton chassis and a low loading. A spacious body provides seating for seven people and has provision for two stretchers. It will be fitted with oxygen equipment and rescue apparatus before being put into operation.

This van should have all the power and manoeuvrability necessary for servicing the mines in that rugged area. It is paid for, as so many other amenities for miners are paid for, by a levy of 9d a ton imposed on coal, and so, every coal user in the country is giving direct help in providing this very necessary rescue van for the men in the mines at Granity.







CP HEAVY DUTY SINKER DRILLS

for hand held or feedleg operation

Other machines available from stock:— CP 59, CP 32F (dry and wet sinkers); CP FL18, CP FL22 (coalpicks); Sump Pumps, etc.

Made by Consolidated Pneumatic Tool Co. Ltd., makers of world famous "Power Vane" rotary compressors up to 600 C.F.M., F.A.D.

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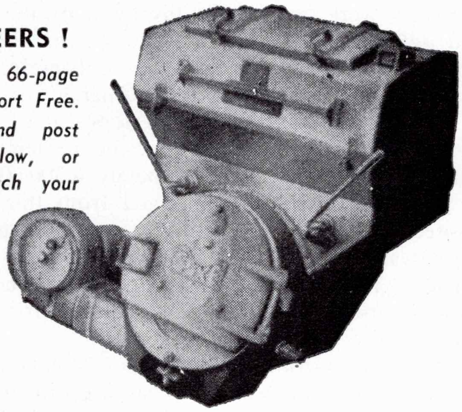

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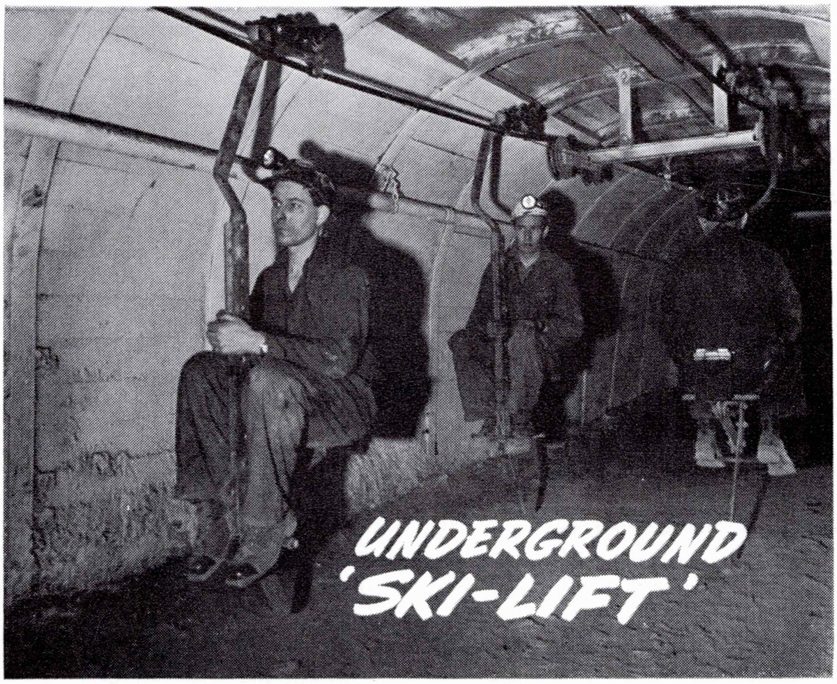
NAME ....
ADDRESS ....
....Coal

On the experimental "ski-lift" at Clifton Colliery. Area Method Study Engineers Jeffrey Richardson, Leslie Emery and Underground Fitter Robert Lamb (right) test out the circuit. The trailing bar below the chair gives added stability.



DEVELOPMENT AT EAST MIDLANDS COLLIERY....

Miners at a Nottingham colliery may soon be using a unique form of mine transport—a "ski lift" which will carry them up steep slopes nearly a quarter of a mile below ground.

The "ski lift", already installed at Clifton Colliery, was the idea of Mr Harold Horrocks, a 54-year-old method study engineer in No. 6 (Nottingham) Area of the East Midlands Division, National Coal Board.

Inspiration from exhibition

Mr Horrocks first thought of an underground aerial ropeway some 15 years ago, but it was after visiting the mechanical handling exhibition in London last year that he began to plan an installation, gaining inspiration from some of the devices at the exhibition.

Now, less than a year later, the Clifton prototype is undergoing extensive trials and has already carried scores of men on the 370-yard journey between its terminal points.

Miners, who have nicknamed the ropeway the "ski lift" because of the steep gradients it climbs, will not be allowed to use it until the trials have been successfully completed.

The prototype is being tested under the most severe conditions. It negotiates gradients of 1 in 2, 1 in 5, and 1 in 15, travelling from a terminal in the shaft bottom.

Passengers are carried in special "chairs" attached to the $\frac{7}{8}$ in. diameter wire rope by patent clips designed by Mr Horrocks. The rope itself, powered by an electric motor, runs on pulleys attached to steel roadway arches. At present only five chairs are in use, but the system is designed to carry men at ten-yard intervals.

The prototype runs at speeds of up to 4 m.p.h., carrying men far faster than they could walk along the same route. A signal wire is near to hand along the full length of the ropeway.

Engineers and officials who have ridden on the "ski lift" are enthusiastic about its possibilities, so much so that a similar installation is now being tried out on a 500-yard stretch of easier roadway at Wollaton Colliery, Nottingham.

Extra advantages

This system of transport has obvious advantages over conventional methods of carrying men underground. It can be used on very steep gradients where other forms of transport are impracticable. It saves time in that miners do not have to wait until an underground train is filled before moving off to the coal face or other place of work. Nor, at the end of the shift, need they rush to catch the first train to take them back to the shaft bottom. This is especially important in pits like Clifton where miners have long distances to travel.

No difficulty is envisaged in connecting aerial ropeway systems so that chairs can move between different systems to carry men over long distances.

From the safety aspect, the system has an advantage over train transport in that men are not concentrated in one place in the event of a mishap, and on the Clifton ropeway passengers' feet are never more than 18 inches from the ground.

Cheap to install

The indications are that the aerial ropeway system is also likely to prove cheaper to install and operate than other forms of underground transport.

Mr A. A. Bowker, production director for East Midlands Division of the National Coal Board, is giving the "ski lift" his enthusiastic support. "I intend to promote the use of this new system of man-riding in all suitable places in our mines," he said.

—*Article and photo by courtesy of National Coal Board, East Midlands Division.*

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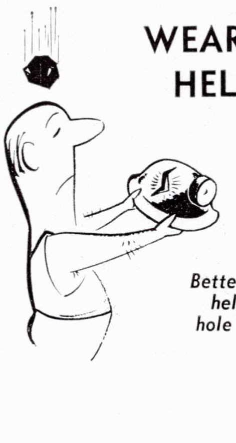


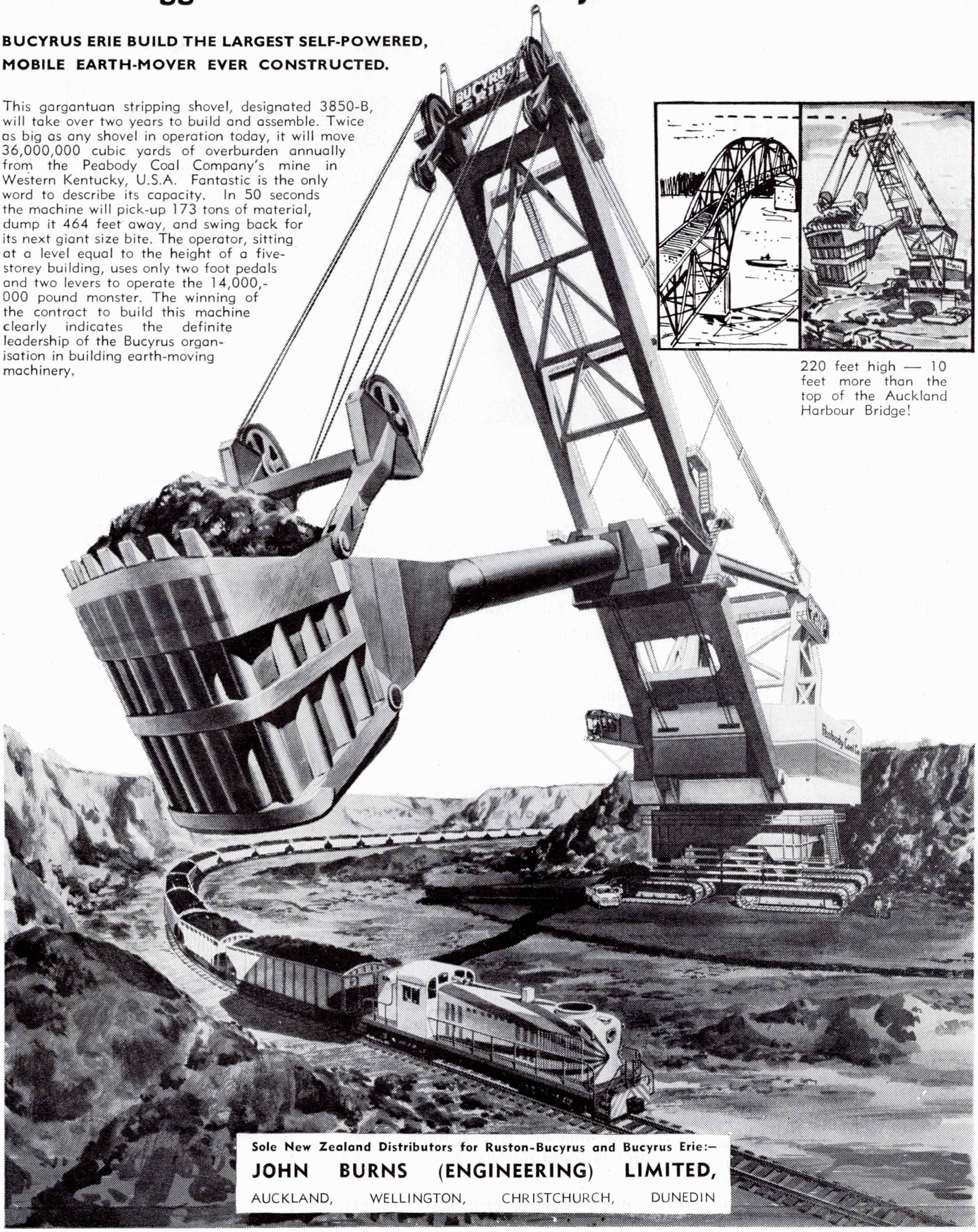
WEAR YOUR HELMET !

Better a dent in the helmet than a hole in the head !

World's Biggest Bucket - 115 cubic yards!

BUCYRUS ERIE BUILD THE LARGEST SELF-POWERED, MOBILE EARTH-MOVER EVER CONSTRUCTED.

This gargantuan stripping shovel, designated 3850-B, will take over two years to build and assemble. Twice as big as any shovel in operation today, it will move 36,000,000 cubic yards of overburden annually from the Peabody Coal Company's mine in Western Kentucky, U.S.A. Fantastic is the only word to describe its capacity. In 50 seconds the machine will pick-up 173 tons of material, dump it 464 feet away, and swing back for its next giant size bite. The operator, sitting at a level equal to the height of a five-storey building, uses only two foot pedals and two levers to operate the 14,000,000 pound monster. The winning of the contract to build this machine clearly indicates the definite leadership of the Bucyrus organisation in building earth-moving machinery.



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CABINET APPROVES

Briquetting Plant at Ngakawau

On July 25, the Minister of Mines, the Hon. T. P. Shand, announced that Cabinet had approved the establishment of a briquetting plant at Ngakawau on the Buller coalfield, 18 miles north of Westport, after examining tenders for different types of plant.

The machine to be installed will produce 2½ oz ovoid-shaped briquettes at the rate of 20 tons an hour. Those manufactured by the normal and slightly cheaper process will be hard enough to rail to Christchurch and other South Island centres, while those to be shipped to the North Island will have slightly different binding, strong enough to withstand the extra handling involved in loading on and off the ships.

This new plant will help to produce a first class domestic fuel from some of the small coal that is at present being dumped.

It is expected that the plant will be in operation by the winter of 1963. In the meantime, investigations are still proceeding into substitute markets for coal.

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WEAR YOUR HELMET!

★

A
HALO
IS
SO
AWFUL
PERMANENT!

★

SALT CAN BE UTILISED IN MINES

Mr D. K. Mackay, mine manager at Wairaki Colliery, Ohai, sends an interesting explanation of his use of salt in mine stoppings. He says:

The idea of using coarse salt on each layer of soil in the log and soil stoppings is to retain the moisture, thus preventing the drying out of the soil and avoiding subsidence.

Previous to the use of the salt, the air travelling in the mine collected any moisture from the soil and allowed a certain amount of subsidence—in some cases more than others. This necessitated constant replenishment of the upper layer of soil and tamping of same, and men had to be constantly employed on going round the stoppings and doing this work.

The salt draws moisture from the mine air and keeps the soil damp, and so prevents subsidence.

Since we first used the salt we have had no trouble with drying out and subsidence, and so have been able to eliminate the necessity of having men continually attending to stoppings.

The log and soil stoppings are four feet or more in thickness, and on each layer of approximately one foot of soil, a thick sprinkling of salt is applied and the soil then tamped. A row of logs three feet in length is then laid on the soil and another layer of soil is then filled over the logs, sprinkled with coarse salt and then tamped. Another row of logs is then laid and the process repeated until the roof is reached. The soil is tamped tightly and, without any evaporation, remains solid and so leak proof.

It is absolutely essential that all stoppings are airtight so as to avoid any leakage of air which could feed a heating or fire enclosed behind the stoppings.

Apart from the subsidence of the stopping, the drying out of the soil also allows leakages beside the ribs, but the use of coarse salt has entirely eliminated these troubles.

Hoping this is of some use to you.

—Thank you, Mr Mackay. It certainly has been. (ED.)

KING JAMES

and the coal mine

To walk the winding streets and lanes of Culross is to wander into history. Coal, or "sea coal" as it was called, has from early times been one of the main sources of wealth of this small and ancient royal borough in the part of Scotland known as the Kingdom of Fife.

On one occasion King James VI of Scotland (James I of England) was taken on a tour of the Culross mine. Over the years the seams of coal had been pursued seawards until the workings stretched for almost a mile under the Firth of Forth, and an upward shaft had been cut to open on a small island.

Now James, whose father Lord Darnley died in circumstances suggestive of murder, and whose mother, Mary Queen of Scots, was executed, was not unreasonably apprehensive of plots and betrayals, and so when he emerged from his underground tour to find himself on a small island with water lapping all around him, his thoughts immediately leaped to kidnapping, and he shouted loudly "TREASON! TREASON!" But he was soon ferried ashore—just as the "sea coal" was.

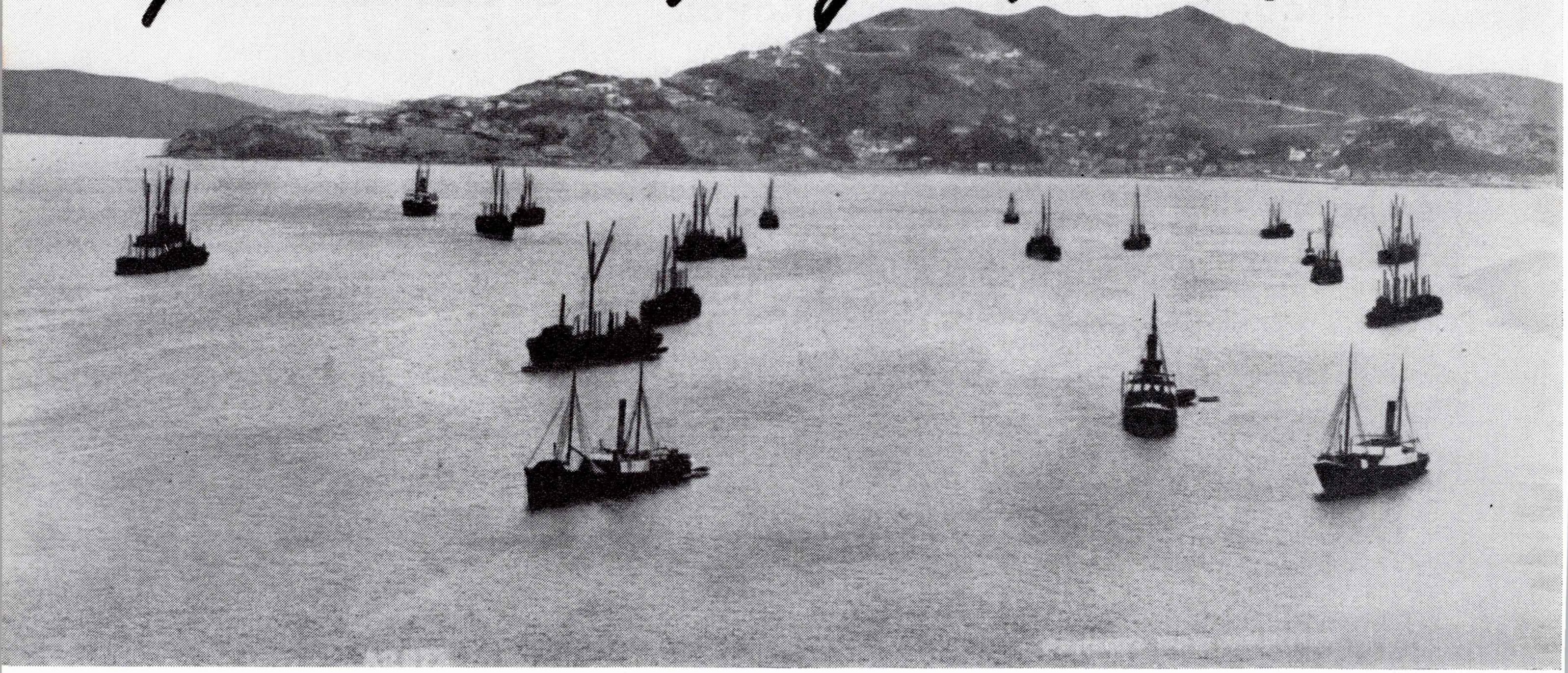
—From a talk by Mr A. J. Campbell in the "Scottish Magazine" programme of the B.B.C. General Overseas Service.

Top Grade Coal in England may be coloured

According to the Daily Telegraph (August 4) the National Coal Board is exploring the possibilities of colouring the top grade coal to protect the consumer from paying top prices for inferior grade coal.

This opens up some interesting possibilities of artistic colour schemes in the fire place, or boiler house attendants obtaining a Royal Academy degree before being considered fully qualified.

They ended their days in 'Rotten Row'



It was a sunny winter morning in August when I unsuspectingly cast off the cares and worries of this world and took a nostalgic journey back into the past, back into the early days of the century, when the new source of power, coal, was slowly displacing the majestic vision of sail in the shipping lanes of the world.

Making an early start to the Wellington wharves, I found the object of my search, the Union Steam Ship Company tug Taioma already hitched up on the far side of a stained, rusted tanker she was to take to the Miramar wharf.

"Captain Olsson! Captain Olsson!" I bawled. Somehow above the general din he heard and waved a genial hand for me to come aboard. I scrambled from the wharf down and across the already moving tanker and took a perilous jump into the tug. I made it.

Comfortably ensconced in the captain's cabin I told him the reason for my visit. I wanted whatever information he could give me about the old coal hulks that used to be anchored out in the stream at Wellington Harbour, the anchorage known to most people as "Rotten Row".

Stream of memories

That was enough for Captain Olsson. He smiled reminiscently, his eyes lit up and he unloosed a stream of memories that made me realise that I had struck gold. Here was a man who could supply a wealth of material of intense historical interest and value.

In no time we were lost in the past, with the ghosts of the old ships, their sailors and their cargoes all around us.

Captain Olsson had spent part of his life with one of the hulks as his home, and he knew them all—and most of their histories.

For example, there was the old Arawata. She was built in 1875 and had a tonnage of 1098 tons. She would have been a trim ship with all sails set. She was a sailing ship, a real lady. All the hulks were originally sailing ships and I'm quite sure their masters would have sunk them rather than see them as the grim old coal hulks they eventually became. The Arawata was converted to a coal hulk in 1925.

Hidden cargo

Wellington wharves always had a number of colliers tied up alongside, and tugs used to bring the hulks in to the colliers and fill up by means of large cane baskets. And it wasn't always coal that came aboard. The captain's eyes twinkled. "I remember one basket was filled with potatoes. Down below they were quickly covered with coal, and no one the wiser . . . but that's another story."

The filled hulks were anchored each to her own buoy, in rows of four, and when a ship needed coaling, a hulk was taken from its buoy to the ship at the quay, and coal was transferred to the ship's bunkers.

One day the Devon (or it might have been the Ulimaroa) reversed the procedure and went out to the stream to coal. The Arawata swung in the tide on her anchor chain and the screw of the steamship cut deep into the hull of the hulk. The nearest sandy strip for beaching was Kaiwarra, and the hulk was quickly towed there. The bow was driven deep into the sand, but the stern swung round and sank in deep water, making it impossible to salvage. The bow of the Arawata could be seen for many years, sticking up out of the sand like a gaunt skeleton refusing to be decently interred. It was finally demolished by explosives.

"Coromandel"

The Coromandel, a barque of 849 tons, built at Glasgow in 1875, brought a large number of immigrants to New Zealand under charter to Shaw Savill. From 1884 she engaged in intercolonial trade and survived many heavy storms and a serious stranding at Westport. During the voyage to Wellington after this episode, exceptionally rough weather was encountered and the pumps had to be kept going continuously. She was berthed at the old Railway wharf, near to where a dredge had left a high bank bordering deep water. The crew, exhausted by continual pumping during the whole voyage, just tied up the ship and left her. She slowly settled on the edge of the bank, and on May 3, 1896, the Coromandel heeled over and sank. After lying in the water for twelve months she was refloated, and was later dismantled and converted into a coal hulk. She was eventually scuttled in Cook Strait in 1933.

"Dilpussund"

The Dilpussund, a barque of 624 tons, was built in 1864, acquired by the Union Steam Ship Company in 1907 and converted to a hulk. She was sold for breaking up in 1932.

"Lutterworth"

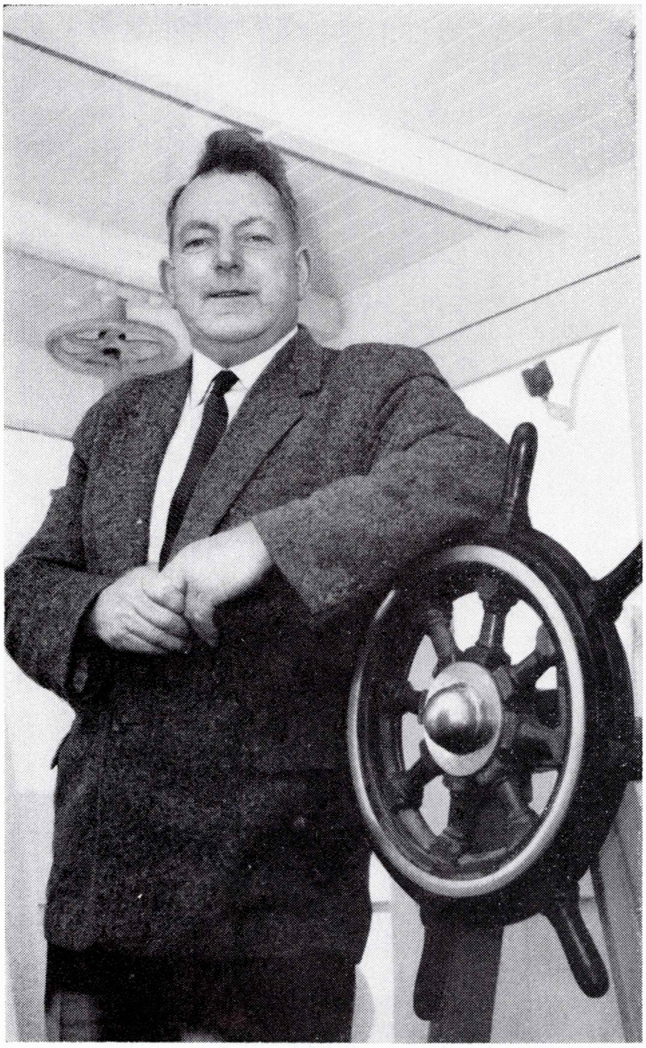
The Lutterworth had an eventful and colourful career. A fine iron barque of 883 tons, launched in Hartpool in 1868, she traded between England and New Zealand for over 30 years. In 1906, running from the north towards Cook Strait in a moderate gale but heavy seas, the steering gear broke, the fore lower topsail split and the ship became unmanageable. The ballast shifted and, with the lee yard arms under water, the ship seemed in imminent danger of capsize. She was too far under for the crew to move along the deck, so they had to crawl along the weather side of the ship on the outside of the rail. Captain Hicks' wife had to be hauled from her cabin to comparative safety by a rope. Captain Hicks ordered the masts to be cut away and the crew stripped to shirt and trousers in preparation for the worst. With such scanty protection from the bitter cold they sheltered under the weather bulwark for 24 hours. When they thought the ship would survive, some tried to straighten the shingle ballast, but in the raging seas, as one of the workers said later, "The shingle flowed around us like water."

The Lutterworth drifted towards the rocks so they decided to abandon ship, but as each boat was launched it was smashed by the pounding seas.

After hours of mental and physical torture the crew were rescued by the ill-fated Penguin.

The remains of the Lutterworth were towed to Wellington and sold to the U.S.S. Co. who converted her to a coal hulk. Her usefulness did not end with the end of the coal hulks. She was eventually used as a target for the R.N.Z.A.F. and sunk by bombing off Wellington Heads in 1950.

One incident, amusing to all but those concerned, happened during one voyage of the Lutterworth. Running short of candles, some of the crew were supplied by a passenger with an apparently inexhaustible supply. It was later discovered that he had broached the cargo, but to reach the opened case he had to crawl over barrels containing 40 tons of blasting powder with a lighted candle. It was a miracle the ship was not blown to atoms. There is no record of what the crew said when they found out what he had been doing.



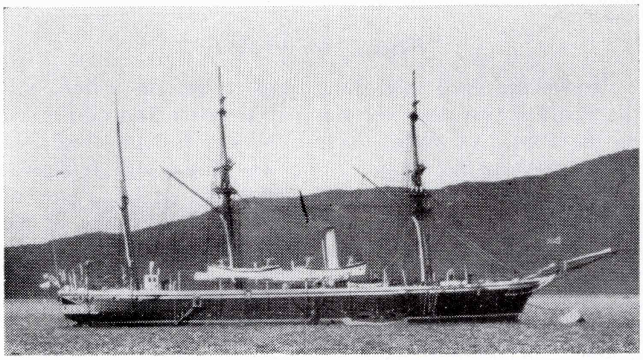
Captain Olsson at the wheel of the tug Taioma, has been 35 years on tugs—28 of them as a Master.

"Prince of Wales"

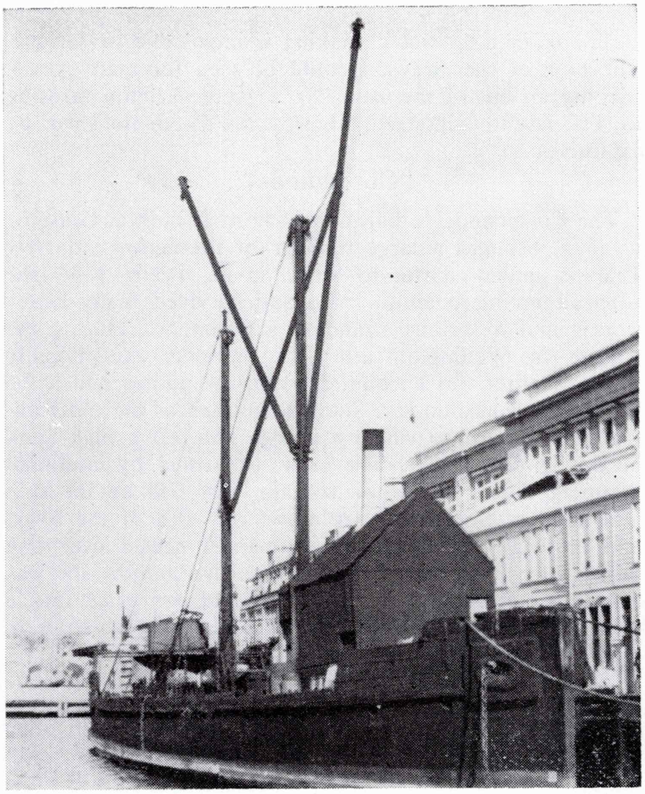
One of the most interesting ships to become a hulk was the Prince of Wales. She was named after and christened by the Prince of Wales, later Edward VII, and used as a storehouse on the Thames. She was fitted with refrigeration plant and her twin screws were driven by a pair of 30 h.p. engines supplied with steam from the boiler of the refrigerators. As there were no shore-based refrigeration plants in those days, sheep were frozen on the ship and the Prince of Wales, stationed at Gisborne, refrigerated 200 sheep a day.

Originally built at Southampton in 1850 for the Hudson Bay trade, she was soundly constructed of oak timbers

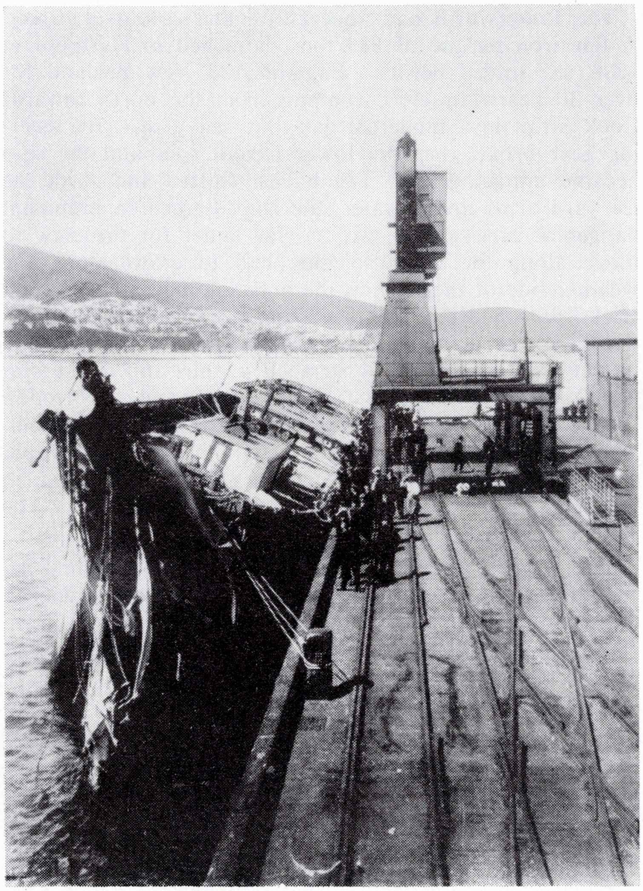
A sailing ship in full sail was a magnificent sight.
Photo by courtesy Turnbull Library.



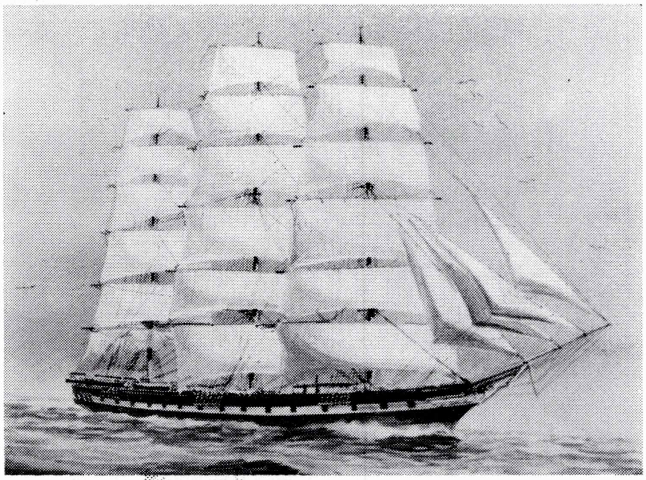
The Amokura.
Photo by courtesy Turnbull Library.



Amokura as a coal hulk.
Photo by courtesy Turnbull Library.



The battered remains of the Lutterworth after her ordeal.
Photo by courtesy Wellington Harbour Board.



From Queen of the Seas to harbour dump for coal. Their masters would have sunk them rather than see them as the grim old coal hulks they eventually became.

Photo by courtesy Turnbull Library.

and planking over which there was a sheathing of greenheart, with zinc sheathing over all. The bows for some 15 feet were solid oak with a swell of a foot or more beyond the general line of the hull.

This was the ship chosen and outfitted by Lady Franklin to search for her husband, Sir John Franklin, who was lost in the Canadian Arctic. The relief expedition sailed in 1856. The Prince of Wales was eventually sunk in Palliser Bay.

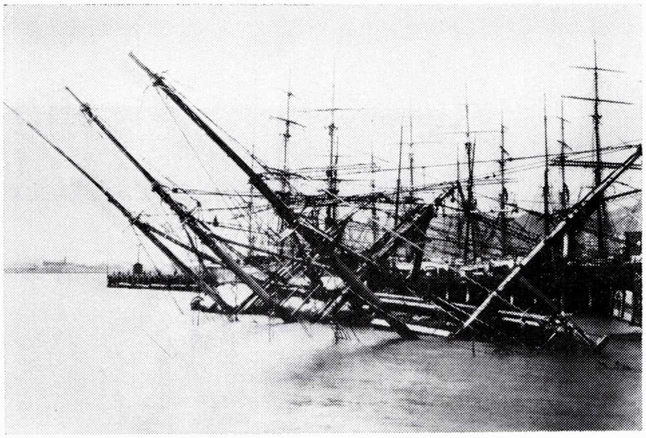
Other hulks, each with an interesting tale to tell, were the Occident, a trim sailing craft that later met her end serving as a target for the N.Z. Navy in Cook Strait in 1949; the William Manson, another of the hulks of Rotten Row, dismantled and towed to Ward Island where she was destroyed by fire; the Adderley; the Gannymede, beached at Evans Bay and cut up for scrap; the Alemeda, the Empress of Errol, the Holmwood and the Ilma, a hulk that was later converted into an overhead crane.

Most famous hulk

The most famous of all the coal hulks ever to grace Rotten Row was undoubtedly the Amokura. Starting life as H.M.S. Sparrow, a Royal Navy gunboat, she was an 805-ton ship, 160 feet in length. She was bought from the Admiralty in 1906 for £800, to be converted into a training ship, and was then given the colourful Maori name, Amokura. Her first commander was Sub-Lieutenant George Samuel Hooper, R.N.R.

Training was tough in the old Amokura. Boys were taken between the ages of 13½ and 14½ for two years' instruction, and more than one captain today received his early training in her. Shoes were off the moment a boy went aboard, and no matter what the weather, burning sun or freezing ice, the decks were sanded, the sails furled or unfurled, and other seafaring chores done in bare feet. Young sailors learned their trade the hard way in sail. Boat drill, sail making, navigation and seamanship were all taught in the Amokura.

Cadets were paid 1d a day for 2nd class cadets and 2d a day upon promotion to 1st class. Upon completion of 12 months, the good conduct stripe brought an extra 1d a day. As fines were taken from this amount for misdemeanours such as carelessness, bad conduct, shortage of kit or A.W.O.L., and as the cane or rope's end could be applied without restriction, the boys were quick to learn, acknowledge and obey naval discipline. Their working hours were from 6.30 a.m. until 5 p.m. with an hour off for lunch. In all, 527 boys were trained in the Amokura, and so great was their affection for the old ship that they formed the Amokura Old Boys' Association and hold a reunion every four years. The next reunion is due next year.



The Coromandel sinks under the water at Railway Wharf.

Photo by courtesy Wellington Harbour Board.

In 1921 the Amokura was sold and converted into a coal hulk, where she did useful if somewhat menial service. Although efforts were made to acquire her and convert her into a nautical museum, the Amokura was finally sold and towed across to Kenepuru Sound where she became a store and a jetty—a sad fate for this grand old ship. She was eventually broken up in 1955.

* * *

There was a sudden jangle of bells down below. Captain Olsson's hand was on the ship's telegraph signalling "Slow Ahead". We were almost back to the Tug Wharf. The spell was broken. Slowly, reluctantly, I came back to the present day. The mists of memory cleared, those ghostlike ships faded back into the past and their place was taken by the rush and the bustle of a modern wharf.

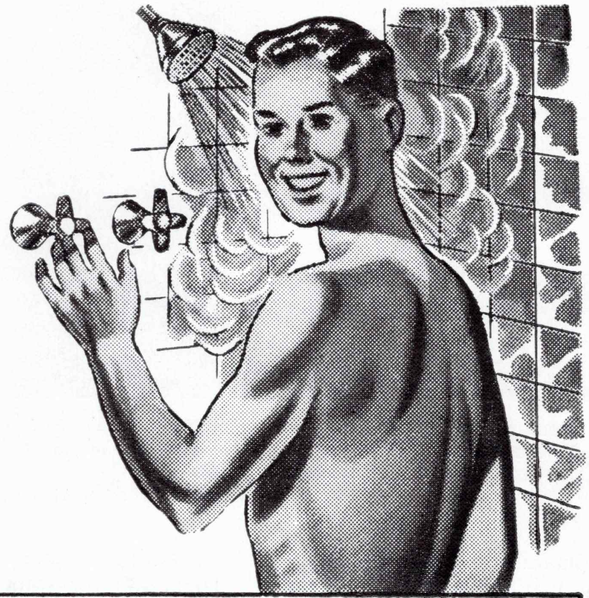
"Come and have a cup of tea," said Captain Olsson. I accepted gratefully. Down below I met the engineer and some of the hands. They greeted the captain with the easy familiarity of friendship and respect. We reminisced some more, discussing the history of the waterfront that was fast disappearing through the lack of someone to gather it together.

The tea break was soon over. A handshake all round. "Come back and see us again," they said. **I fully intend to.**

Information and details for this article were supplemented from "White Wings" by Henry Brett, published by Brett Printing Co. Ltd., Auckland, 1924, and the Evening Post, Wellington.

INSTANT

Hot Water



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2

tell us a story

We enjoy getting stories of the mines from the old timers, and so we welcomed the following story from "Old Miner", who is in the Lorne Hospital, Invercargill.

A slight explosion in the old Birchwood mine had caused it to be classified as a "safety lamp" mine. Lamps of the old Glennie type were used. In spite of this, one day, when the afternoon shift had filled all the boxes and when the day shift was passed in, they just went halfway down the dip, sat down, opened up their lamps and lit up their cigarettes or pipes as the case might be.

One day "Old Miner" smelt something burning. It turned out that one of the men had gone over to his jacket that was hanging on a prop nearby, and had a smoke. When he had put his pipe away, the embers had set fire to his pocket. "Old Miner" was fortunate. Some of his comrades have paid dearly for similar relaxations.

"Old Miner" worked in mines for fifty-five years and, according to him, has not had a serious accident. Perhaps that is because he treats so lightly mishaps that to the average person would be considered serious.

The following story sent in by Mr J. Warnock could well qualify for the National Safety or the Water Safety campaign.

Two miners from Nightcaps, let's call them Joe and Mac, owned a boat that they used for fishing. One Saturday morning they set out for their favourite fishing spot, a sunken reef. Joe was navigating, and after carefully lining up certain landmarks, he called, "Drop the anchor when I stop the engine."

As the engine faded Mac heaved the anchor over the side. All would have been well had not one of the prongs caught under his waistcoat. Over went anchor, rope and Mac. He struggled desperately but did not free himself until the anchor hit bottom at thirty fathoms. Then up he popped like a cork and, grasping the rope, managed to pull himself aboard again.

The writers of each story appearing on this page receive a prize of 10/6. Should the story be accompanied by a reproducible photo, the author receives £1-1-0. Anyone with a good coal or mining story should send it in to "Coal Magazine", Box 5042, Wellington.

But, KEEP YOUR STORIES SHORT AND TO THE POINT.

In the meantime, Joe had been fussing over the engine and was quite unaware of the incident. As he came out of the cabin he met a dripping Mac climbing on board. His exclamation "Where on earth have you been?" brought forth a very fruity reply from Mac.

"Geordie" of Ngakawau tells us the story of a happening at Wingate Grange colliery, County Durham, in 1906.

Payment for coal hewers at that time was by the ton, but this was on a sliding scale governed by the county rate, which in those days was about five shillings a day. When a flat section made higher wages than the county rate, the tonnage rate could be reduced.

One time the Gaffer (manager) of Wingate Grange informed the secretary of the union that he was claiming a reduction in tonnage rates for the First East Flat. The secretary called a special meeting to discuss the position. After a number of miners had aired their views, one big miner slowly rose to his feet and said, "Mr Chairman, I dinna know wha' all tha talk's aboot, for the Gaffer says he'll give us mare chummins (mine trucks) an' we'll mak tha same money".

"Geordie" also mentions that there was no minimum wage, and that good miners sometimes made as little as two shillings a day in the hard places.

VANISHING SMOKE

Your story of the vanishing pints reminds me of a story told by Joe ——, when he first took on a pub.

The regulars were hard at it when there was a knock on the door. Joe assisted those who required assistance through the side door and admitted a police sergeant and a constable. After the usual salutations the sergeant suggested that he would like to examine the bar.

Joe said, "Certainly, Sergeant. I was just cleaning up."

"So I see. Quite a lot of half-empty glasses tonight."

"Yes, the beer could not have been too good."

"Quite a lot of smoke here, too."

"Struth! I'm not supposed to wheel that out, too, am I?"

—"Valintine", Wellington.

PRACTICAL MINING MEASUREMENTS APPLIED

It was at crib time in the mine that a number of the miners were assembled discussing sport and general topics. The talk turned to the district beauty contest. After the virtues of the various candidates had been fully presented, Bill, a man in his late forties and usually critical, complained of the absence of physical development in all the lassies and started to expound that of his wife, a well developed and comely lady although well beyond beauty queen years.

In his tirade Bill began to get carried away with his own eloquence and was assisted by humorous remarks and encouragement from the younger men. After expounding his wife's physical qualities in detail he told of her appearance in a beauty competition in Scotland and declared the judge had stated she was more perfect than Venus de Milo.

It was at this point that Joe, who could be relied on for some humour, and whose wife, although plump, was graceful and good looking, broke up the party when he chipped in with, "I say, Bill, you want to cast your eye over that old girl of mine. I'll bet she is a pick-handle and a half across the beam."

—Pip, Dunedin.

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Relics of the past in my district

by Sandra Crackett

To write a reasonable account of relics of the past in my district I spent hours going through dusty, yellow, crumbling clippings, newspapers and magazines. Whether this could be classed as an English or history subject, I think it is one of the most interesting topics I could ever find to write on.

Flicking through the first musty smelling magazine, a headline seemed to stand out and catch the eye. It read "Westport Coal Helped Save the 'Calliope'." I thought this incident at the time a trifle incredible, but reading on I found it was not as unbelievable as it had sounded. It is an article one should be proud to write on as this remarkable achievement came from one's own coal and district. It appeared that over 70 years ago coal from Westport played a leading role in one of the most dramatic incidents in British naval history, providing power which enabled the H.M.S. Calliope to struggle out of Apia harbour in the Pacific, in the teeth of a raging hurricane, while less fortunate ships, unable to battle out in the open sea, were overwhelmed by the storm. Whether or not this boat was saved because of its using Westport coal is quite beside the point, but this did help to put the Buller in the limelight, a lot of which it is losing today.

Maybe what I have just told you isn't a relic of the Buller, but it could definitely come under the heading of a legacy, showing that Buller coal was equal to anything in the world as steam coal.

A true relic of the Buller I am proud to write on is an old resident of Seddonville, someone who lives not quite 12 miles away from Ngakawau. His name is Thomas Dove, and I think it is in all fairness that we class him as a well worthwhile relic of the Buller, for he is nearly 90 years old and still going strong. He has lived in the Buller nearly all his life after emigrating from Yorkshire in 1892 and starting work at the age of 11 years. At his present age he is quite remarkable and is now participating in opening up an old mine which many years ago was closed and flooded because of fire. He uses none of the modern mechanisations used in present day mining and, if this old man's dreams come true about opening up this mine, he will certainly help to pull the Buller out of its serious decline in the coal trade. I would like to add that this old man has not seen Westport since he first arrived there in 1893. To him it could still look like a photo in somebody's old photograph album of memories, or a picture out of a book. Although he is barely 4½ft high, he has the will and the strength of a man twice his size. If all the men in the Buller had ambitions like he has, it would be a better place today and a better place to live in for those in years to come.

Another old relic of the past is a place, although in my own district, I have never had the privilege to visit. This is a place which is even now hard to find on any map. I am talking about Burnett's Face at Denniston. For over 70 years, from 1886 to the present day, this has been at the back of beyond, and as a settlement, condemned by medical practitioners, politicians and others. Much of the industrial disinterest and dissatisfaction of the mines may be attributed to the sordidness of the housing conditions and monotony of their home life. It is situated in a gully near the foot of Mt William. Now the last chapter has closed on this old residence for it is now nothing more than a ghost town. The only relief from the dense, overrun vegetation is a few dilapidated old houses and disused mine shafts. Rust and neglect show everywhere. This isn't unlike the township of Charleston, another old relic of a prosperous gold mining centre. Now all that remains of any sign of gold is the broken down water races, derelict gold tailings and the scars left on the land.

Sandra Crackett, now an upper fifth form student of the Westport Technical College, was last year given a project to write on "Relics of the Past in my District". So good was her story that it was passed on to Coal and we have pleasure in reproducing it here.

Her hobbies are: records, reading, hockey and softball. Like most teenagers, she is clothes conscious and likes to keep up with the fashions through magazines. She also likes writing short stories.

Despite her literary talent, Sandra's ambition is to train to become a school dental nurse.

Sandra's father is employed as a Deputy at the State Coal Mine at Stockton and all of her relations are connected with mining in the Buller and elsewhere in New Zealand.

Sometimes when journeying along the Coast road my thoughts run riot and I wonder if it is too much to hope for that our coastline might have been the haunt of some buccaneer way back in the days of the sailing ships. Now I know my imagination has got the better of me, but this much can be said. In those goldrush days the Buller must have had its fair share of Jesse James types as indicated by the "Gold hold-up" monument just outside of Runanga. Maybe it is safer to be living in the year 1960, after all.

Sandra Dianne Crackett (aged 16 years).

Growing more and more excited at what I was finding out about my own district I seemed to have forgotten I was writing an essay for you to read, and I nearly missed a most important feature concerning Millerton. The spirit and good fellowship and loyalty which were found in this mining township of Millerton more than 60 years ago earned for its people the high respect of all the Buller district and many others who have visited this hilltop area over a period of years. True, it is not a complete ghost town, but its population is slowly on the decline. A reunion was held to commemorate old days on Millerton, and it was a function such as this which helped to wipe away the tears of regret of an old friend missing an old home.

My thoughts seemed to have journeyed a few miles over to a place called Stockton—a town now also of the past; so, if the reader will travel on with me, I will try to explain the one-time importance of Stockton. Since the erection of an aerial roperoad from the mine to Ngakawau Stockton Coal Mine, Stockton within a few years of this invention seemed to go ahead by leaps and bounds, but now it is "on the outer". Whether this is due to the lesser demand for coal or the exhaustion of the mines themselves is hard to say. But this much is known: Stockton is governed by the mines, as these are its chief source of income. Places like the "Burma Road" and "Tin Town" are now only vague memories and place names on some old maps hidden in somebody's junk drawer. Once these names were spoken on nearly everyone's tongue who was an inhabitant of the Buller. As the coal trade is not likely to improve, nor will Stockton; it looks as if another town's name will go under an office file labelled "Has-Beens". In 50 years Stockton will most probably be nonexistent.

So lost in my thoughts was I that I hadn't noticed that my pile of reference books had slowly dwindled away and I was left sitting with my knees tucked under my chin (my favourite position when I am thinking). I had discovered in my hours of reading that the Buller **really was** all that it was said to be—prosperous, friendly and famous.

(*continued on page* 32)

HOME INSULATION IS IMPORTANT

DON'T WARM THE BIRDS THEY'VE GOT FEATHERS

It is a simple fact that heat will always flow from a body at a higher temperature to one at a lower, and the rate at which heat is transferred depends on the difference in temperature and the material of the surfaces.

Heat is lost or transferred by three different methods—radiation, convection and conduction. A person is conscious of a hot object nearby, even though he is not touching it. This is *radiation*, and this is the method by which the heat of the sun arrives on the earth. *Convection* takes place when air in contact with hot objects rises and cold air takes its place. With convection the heat is carried away in the air. *Conduction* is the absorption of heat through solid objects.

Losses can be minimised

A house loses heat to its surroundings by all three of these methods. Loss by conduction is mainly to the ground, and particularly so if a concrete floor is laid directly on the earth. In this case some insulating membrane is essential if heat losses are to be kept to a minimum. Radiation losses take place from warm walls and roof, and convection losses are due to doors, windows, open fireplaces and any gaps that cause draughts or leakage of air.

A bright object loses heat at a slower rate than a dull one. A black roof will receive more heat from the sun than an aluminium-painted roof. Conversely, a dark-coloured roof will lose more heat than a bright one to the atmosphere by radiation during the winter months.

All heat losses are proportional to the temperature of the outside surface and to the air temperature. The surface temperature varies with the type of material of which the outside wall is constructed. Some types transmit heat far more quickly than others. For example, the heat lost through a window is about $1\frac{1}{2}$ times that lost through a 9-inch solid brick wall, twice that lost through an 11-inch cavity brick wall, and four times that lost through a wall incorporating special insulation.

More glass, more heat

Many modern New Zealand houses have walls composed almost entirely of glass in some rooms. While this may be aesthetically satisfying, it must be remembered that, to maintain the same temperature inside such rooms, additional heat will be required. It is, of course, impracticable to reduce the heat losses to nothing. However, considerable reduction in your fuel-bill can be obtained at a reasonable cost.

The inclusion of insulation while building a new house is comparatively cheap. The use of aluminium foil-covered building paper in place of normal building paper will add little to the cost of the house, but effect a considerable saving in heating costs. Even with existing houses, improvement can be effected by insulating the ceilings.

Many types of insulation are available, and can be applied with reasonable ease by a handyman. These include glass wool quilts, perlite, aluminium foil insulation and others that architects, builders and hardware merchants might recommend in particular instances.

Choice of materials

Another way in which heat is lost from the average house is the air which travels through the house. Some degree of ventilation is essential if stale air is to be avoided. Attention to badly fitting windows and doors, gaps in skirting boards and other causes of warm air wastage can reduce the air changes to a reasonable proportion, and these adjustments are beneficial out of all proportion to the effort involved.

Even people in the warmer parts of the country can benefit from attention to insulation to help the home keep cool and comfortable while the temperature outside soars higher.

Insulation therefore plays a very important part in home building or renovation, and should be fully considered by all who wish to preserve a moderate and comfortable air temperature in their homes at all times and under all conditions.

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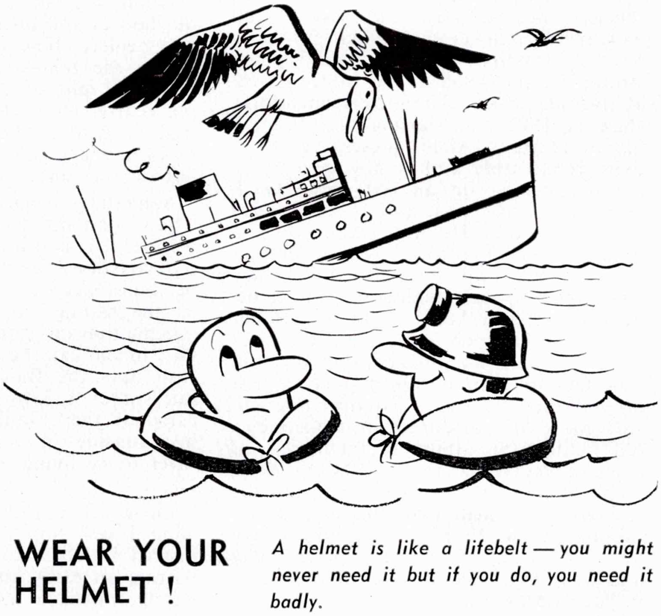

WEAR YOUR HELMET !

A helmet is like a lifebelt — you might never need it but if you do, you need it badly.

WOMEN'S PAGE

The Feminine Viewpoint

by Joanna Wells

RECIPES and HINTS

Would you like to be one of those housewives who, when visitors arrive, just slaps something into the oven and in no time there's a mouth-watering confection on the table? Well, here's one way, and we are indebted to the Home Science Extension, Department of Adult Education, Dunedin, for it. This is a recipe you can make up at any time, keep it in the refrigerator, and produce it to cook when you require it.

BUTTERSCOTCH ROUNDS

12 oz flour
$\frac{1}{2}$ teaspoon salt
10 oz brown sugar
2 eggs
3 teaspoons baking powder
8 oz butter
$\frac{1}{2}$ teaspoon vanilla

Sift flour, baking powder and salt. Cream butter and beat in sugar, then vanilla and eggs—one at a time. Stir in flour, shape into rolls 2 inches diameter and wrap in waxed paper. Chill thoroughly in refrigerator. When ready to bake, cut into slices $\frac{1}{8}$ inch thickness. Baking time: Electric, 400° F.; gas, No. 6; 8 minutes. This recipe yields 8-9 dozen biscuits.

For variety:

Butterscotch Creoles: Add 2 cups finely chopped dates and 1 cup finely chopped nuts to the dry ingredients.

Hazel Nut Slice: Sprinkle with chopped nuts before baking.

Chocolate Nut Slice: Add 1$\frac{1}{2}$ cups finely chopped nuts and 3 oz melted chocolate.

Coconut Orange Slice: Omit vanilla and add 1$\frac{1}{2}$ tablespoons grated orange rind, 1 teaspoon orange juice, 1-2 cups desiccated coconut.

Here are two recipes for biscuits without eggs, for which we are indebted to the Home Science Extension, Department of Adult Education, Dunedin.

★

A cheap fire

Keep your potato peelings; dry them, and they will keep your fire burning all the afternoon. Also roll up old newspapers into large balls after wetting same and place on fire. These will gradually burn through and last all the evening.

★

CARAMEL BISCUITS

In a saucepan melt
4 oz butter
4 oz brown sugar
1 teaspoon vanilla
1 tablespoon milk
1 dessertspoon golden syrup

Cook until pale brown and syrupy. Cool and add

7 oz flour, sifted, with
$\frac{1}{4}$ teaspoon baking soda

Form into balls and press on to a tray with a fork or the bottom of a glass. Oven temperature: 350° F. electric; 4-6 gas; 10 to 12 minutes.

To repair a carpet

If you have a hole in the carpet through a hot cinder burning it, you can easily repair it. Place a fine knitting needle over the hole and oversew with wool as near colour as possible. Pull out needle and place very close to previous row. Sew again and continue until hole is covered. Cut through loops of wool, give a little brush, and you will hardly notice the mend.

★

CONDENSED MILK BISCUITS

4 oz butter
2 oz sugar
2 tablespoons sweetened condensed milk
4 oz flour
1 teaspoon baking powder

Cream butter and sugar, beat in sweetened condensed milk, then fold in flour and baking powder. Roll into balls, press on to cold oven tray with a fork or bottom of a glass. Temperature: electric oven, 375° F.; or 4-6, gas; 10 to 15 minutes.

For variety try the following:

Almond: Add 1 drop almond essence. Press $\frac{1}{2}$ blanched almond on top.

Nut: Add 2 tablespoons of finely chopped walnuts.

Kiwi Crisps: Add 2 tablespoons chopped dark chocolate.

Chocolate: Omit 1 level tablespoon of flour and add 1 level tablespoon cocoa and $\frac{1}{4}$ teaspoon vanilla. Press piece of date on top.

Coffee: Omit 1 tablespoon condensed milk and add 1 tablespoon coffee essence.

★

HANDY HINT

To take the kinks out of used wool, wind it over a board as you unravel it, then pass the wool through the steam from a kettle. The result is springy, kink-free wool ready for reknitting.

Kidney Pie

Very rarely cooked in this country, but very tasty. Boil some beef kidney, cut it into thin slices and arrange it in a pie dish, at the bottom of which has already been placed a layer of boiled macaroni. Season the kidney with salt, pepper, and a little cayenne. Take some ripe tomatoes, cut them in slices, and lay them over the kidney; on the top of the tomatoes put a layer of breadcrumbs; continue these layers until the dish is full, and pour the gravy over it; scatter breadcrumbs on top, and bake for about one hour. Serve very hot from the dish in which it has been cooked.

★

Don't throw away tea leaves

They will clean your crystal flower vases and glass jars. Put them straight out of the teapot into the vases and fill with hot water. Leave overnight and when removed in the morning the stain on glass will easily wash off. Boil tea leaves in the pan used for cooking fish and the fishy smell will disappear. Keep tea leaves several days and then infuse again with boiling water; when strained they make a good polish for windows, mirrors, etc. Sprinkle them on the flower beds—they improve the flowers, particularly violets.

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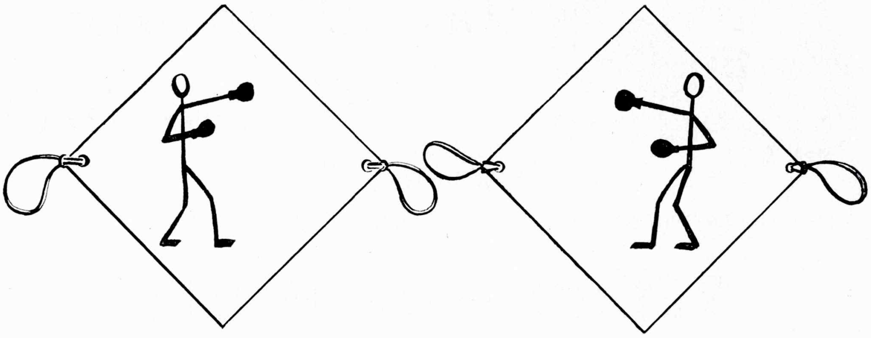
Devilled Mushrooms

Peel about a pint of mushrooms, break into pieces, season with salt, pepper, and a squeeze of lemon juice; add the yolks of 3 hard-boiled eggs, a pint of stale breadcrumbs, and 1 oz of butter; season with chopped ham, salt, cayenne, and a few drops of lemon juice. Fill small shell dishes with the mixture, and cover the tops with breadcrumbs and bits of butter. Set in oven to brown.

The Little Fighting Men



John used to be a most contrary little boy. He NEVER did what he was told. On cold mornings he'd jump right out of his warm bed and go rushing out to the bathroom without putting anything warm over his pyjamas. And he ALWAYS forgot to wear his slippers.

Well, one day John had wet feet going to school. He didn't tell anybody, and his socks were wet all day. He didn't change his wet things when he got home, either. All of these things were foolish things to do. And now, here he was in bed with a SEVERE chill.

Oh dear! He DID feel sorry for himself.

The first day he was very feverish and shivery, and his skin felt hot and dry. He felt sick and weak and kept asking for water. Mother did her best for him and the Doctor had given him some medicine that did not taste too bad, and said that "it would reduce the fever".

The second day John was much better. He had to stay in bed — but this time he had a warm cardigan to cover his shoulders when he sat up.

By now he wanted something to do. He did not want to read, or draw, or colour in. He didn't know WHAT he wanted.

Poor mother was at her wits' end. Just what COULD she do to keep him happy? Then suddenly she had an idea. She cut out a square of cardboard like the one shown below, and she drew one little man with boxing gloves on. Then she turned the cardboard over, top to bottom, and drew another little man with his arms outstretched on the other side, facing the opposite way. John watched her interestedly, saying nothing because he was REALLY a polite little boy and did not want to interrupt what his mother was doing.

When Mother was satisfied with her drawings, she made holes on opposite corners of the cardboard and looped a rubber band through each of the holes.

"What do I do with this?" enquired John.

"Just twirl it backwards and forwards between your fingers," said Mother.

John did what he was told and the cardboard spun round. "Oh look Mother! The two little men are having a TERRIFIC fight."

Mother smiled quietly to herself and tiptoed out of the room. That would keep John occupied for a long time, and she had SO MUCH housework to do. Later she would explain just why the two little men appeared to fight.

John is quite well now, and SUCH a good boy. He ALWAYS puts on his dressing gown and slippers when he gets out of bed, he ALWAYS dresses and undresses quickly, and does not get cold, and he NEVER, NEVER leaves wet socks or shoes on his feet.

I wish ALL little girls and boys were like John.

A SCRAP BOOK

All children love to cut pictures out of old magazines and periodicals, and they can be kept happy for hours with just a pair of scissors, a pot of paste (flour and water would do, although real office paste is better), a paste brush, an exercise book (unlined), and a bundle of magazines.

This helps a child's independence by allowing him or her to pick the illustrations, it helps the artistic sense in arranging the pictures in the book, it helps in logic by putting related pictures together, and you might be surprised at how well your child can do it. Children should be allowed to do it entirely on their own, with no advice or assistance from the parent. No matter what the result, suitable praise and encouragement should be given — and this should be given sincerely.

A scrap book is one of the oldest and best ways of keeping a child occupied, but Mother, save yourself and your furnishings by covering adjacent carpets, table or bed with spread-out newspapers. And do see that the youngster has an old apron on.

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A NEW COMPETITION FOR CHILDREN

The Children's Page has always been a most interesting and important section of Coal Magazine, and we have no doubt it is read by children of all ages —from seven to seventy.

Now the Editor has four children of his own, and many of the ideas for games and stories you have read in these pages came from these children.

All children have their own favourite game they play at home or school. All children have their own favourite party games. So, why not share them with others and help mothers with their ideas for parties or for keeping their children occupied?

Ideas do not have to be original. In fact, we shall be surprised to get an original game that is really good. But, if the game you like best is a good one, it is worth sharing with other children in other parts of New Zealand. Remember that a favourite game played in Ohai might not be known in Huntly or on the West Coast, and the other way round.

Stories may be original or they may be copied but, if you copy a story, be sure to add the name of the book from which you took it. If you wish, you may review a book you have read which you think other children will enjoy. Poems are most acceptable, and we don't mind at all if Mum or Dad helps you.

If you are artistic, you can illustrate your story or poem with a drawing, but this must be done on unlined paper in very black or Indian ink. There is no end to the interesting articles you can send in to Coal Magazine.

FOR EACH ITEM WE PUBLISH, "COAL" WILL GIVE A PRIZE OF 5/-, SO THIS IS YOUR OPPORTUNITY TO TRY YOUR HAND AS AN AUTHOR OR AN ARTIST.

Don't forget—a good party game, or any game suitable for playing indoors or outdoors, may win you a prize. At the same time you will be bringing pleasure to others.

One thing is important. Even if you want to use a pen name, you must not forget to enclose your name, address and age.

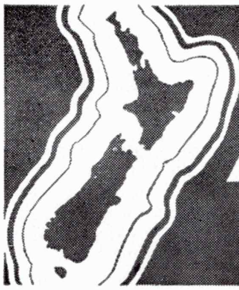
With your aid, Coal Magazine will be able to make this a Children's Page where boys and girls will help fill their own columns with their own contributions.

Stories, poems, drawings or other contributions must be sent in to Coal Magazine by the first day of August, November, February and May. Late entries will be held over until the following issue.

The address for contributors is:

The Editor,
Children's Page,
Coal Magazine,
P.O. Box 5042, Wellington.

Go to it, kids, and the best of luck!



District News

— WAIKATO —

Congratulations, although somewhat belated, to John Tait, of the Rotowaro Office staff, and James Lambert, of Renown Mine, who won the Waikato and Thames Valley pairs championship at bowls.

Our heartiest congratulations, too, to Graham Farrar, son of carpenter Stan, who is a fitter at the Carbo factory at Rotowaro. Graham was chosen to represent New Zealand in the Kiwi Rugby League tour of England and France.

Frank de la Perelle, manager of the Bank of New Zealand, Huntly, has retired and gone to Christchurch to live. He was for nine years manager of the Bank of New Zealand in Westport before going to Huntly two years ago, and was well known to mining people in both centres.

July flooding in the open and underground mines at Huntly interfered with production. The collapse of the entrance to the Renown mine stopped work for two days. This was caused by erosion and slips. An additional hold-up was caused by the collapse of a road bridge between Renown and Rotowaro.

Mr T. McGhie, manager of the State Mines Department at Huntly, told "Coal" that it was only with the greatest difficulty that the opencast mines were kept working. Some miners were unable to get to their work, particularly from the Rangiriri area, and were diverted to other districts.

The picture at the foot of the page was taken on the occasion of a farewell party for Miss Christina Wallace, a member of the Rotowaro office staff for two years. Her parents are Mr and Mrs Don Wallace of the mine staff.

Christina married Graham Nicholson, Mines Dept. Head Office staff in Wellington.

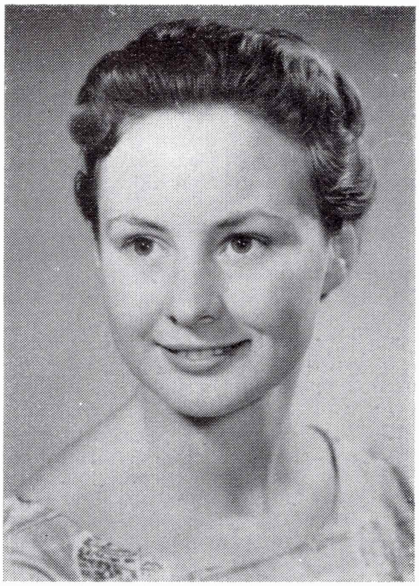
One of her chief interests at Rotowaro was girls' marching.

Back row, left to right: Noel Fisher, Bessie Watson, Don Lindsay, Frank Marshall, Don Spender, Ian Grooby, Vince Tregoweth, Dennis Haslam, Tom Mills, Keith Douglas, John Tait, Steve Smith, Murray Haycock. Front row, left to right: Shirley Pendleton, Helen Hills, Christine Wallace, Heather Pitt, Rex Bagge, George Keown, Matthew Miller, Laurie Sewell, William Edwards, John Kendrick.

SOMETHING HAPPENS

The daughter of a well-known mining personality at Huntly has an exciting year ahead. She is Maureen Baxter, daughter of Mr and Mrs Alan Baxter. He served a term as member of Parliament for the Raglan electorate.

Maureen has won an American field scholarship and flew to San Francisco from Whenuapai on August 24. She will stay with an American family during her year overseas and will attend the Mt. Clemens High School, which is in Michigan, in the Great Lakes area.



Maureen Baxter

Maureen is 16 years of age and will be 17 a week after she arrives in America. "It looks as if I will be having a 'white birthday'," she said when interviewed. She passed her University Entrance examination at Huntly College last year and eventually intends to become a secondary school teacher specialising in English.

Deputy-head girl of the college, Maureen has been a prefect for two years and is a house captain. Her sports include tennis, basketball and swimming, and she has represented her school in all three. She is also a qualified basketball referee. She has a particularly warm spot for roller skating. Hobbies cover a wide field, too. Maureen is interested in reading, sewing and the piano, "with a bit of gardening thrown in". Looks as if Dad will have to do without the gardening for the next year or so.

— BULLER —

General

Very little of interest has happened during the winter months.

Mr W. McGettigan, Administration Officer at Ngakawau, returned after completing relieving duties at Ohai, Southland, and has now left on transfer to Forest Service, Invercargill. On Friday, August 4, the staff from the various State coal mines in the district met at Ngakawau to say goodbye to Bill and wish him well in his new position.

Indoor bowls is in full swing at present and has a very large following throughout the district. To help promote the game Buller Motorways of Waimangaroa have donated a silver challenge cup for competition between the clubs and some keen games should result.

Obituary

It is with regret that we have to report the passing of the following respected citizens from our community.

Mr Charlie Fox, Sen., of Millerton. Mr Fox was one of the oldest residents of the area, coming to Millerton as a young man and working at Millerton until he retired from mining.

Mr W. Shearer, of Hector, who was accidentally killed in McCabes Mine, Stockton.

Mr J. Miller, of Ngakawau. Mr and Mrs Miller's Golden Wedding was reported in March issue of "Coal".

Mr Keith Morgan, who, although not in the Industry, was born at Stockton, where he spent the greater part of his life, and was well known and respected by all.

Mr R. McDonagh, of Westport, who over a period of 60 years was one of the best known and well liked travellers to the mining townships.

Mr Tom Brown, of Westport, who was secretary of the Westport School of Mines for very many years until the school was taken over by the Technical College. With the passing of Tom Brown another link with mining in the Buller is severed. Tom was the son and grandson of J. C. Brown and T. Brown respectively, who in their turn served the Buller as general managers of the Westport Coal Company's mines.

— OHAI —

Staff

A send-off was held on June 16 for Mr H. Mathieson who has resigned from the Public Service and taken a position with a private firm in Greymouth. We wish Harry and his family all the best for their future.

We hope Mr McGettigan is having his well-earned rest back in Ngakawau after spending his "winter vacation" in the snowy south, relieving in the Administration Officer's position, whilst Mr J. Hill, of the clerical staff, and Mr T. Fenton, technical staff, sailed away in the Wanganella to enjoy a 14-day Islands cruise. The trip was thoroughly enjoyed.

Sport

The Ohai Youth Club, now having over 60 financial members, has pulled away to a fine start. Members meet for 2½ hours of entertainment every Sunday night. This evening is proving popular and it is hoped the good attendance will continue.

Cards are held in Ohai every Tuesday and Thursday night for both men and ladies and on Wednesday afternoons for ladies.

Obituary

Mr William Thomas Lloyd, aged 58 years, of Nightcaps, died recently. Mr Lloyd worked in the mines from the time he left school, beginning in the Nightcaps Coal Co. and later on working in Moreton, Black Diamond and the Ohai mines. He was a well known resident of Nightcaps, being in many clubs and various associations.

Weather

The weather in Ohai has certainly been wintry. At the beginning of July, there was a grand fall of snow which lasted for about three weeks. Many of the technical and clerical staff caught a snowball or two as they came out of the office.

One Saturday a large crowd gathered in the Main Street and a snow fight began. While the crowd had fun in the snow, a few spectators were busy with their cameras, both movie and stills.

(continued top of next page)

MINING FAMILY CELEBRATES GOLDEN WEDDING

Mr and Mrs Joseph Stenhouse celebrated their golden wedding at Mangakino recently.

Mr and Mrs Stenhouse will be well remembered by West Coast families. Mr Stenhouse worked for 15 years in the Buller coalfields, the family living at Millerton.

Before coming to New Zealand Mr Stenhouse worked in the Fifeshire coalfields, Scotland.

Our photograph shows two sons, Charles (on the left) and James, with their parents. There are four grandchildren and two great-grandchildren.

* * *

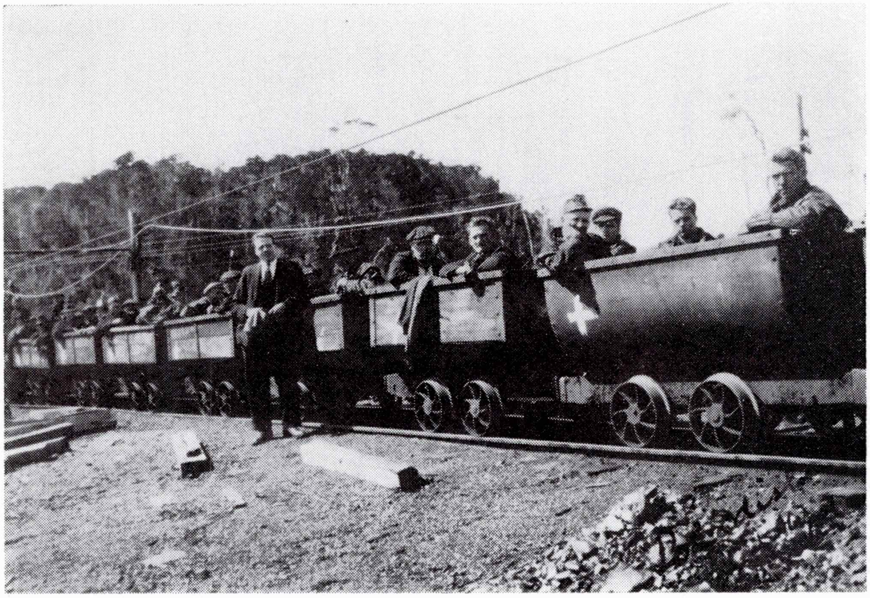
This old photograph has been brought to our notice by Mr T. McGhie, District Manager of the State Coal Mines Department at Huntly.

It was taken in 1931 by Lord Bledisloe, who sent it to Mr McGhie, then manager of the Stockton Mine.

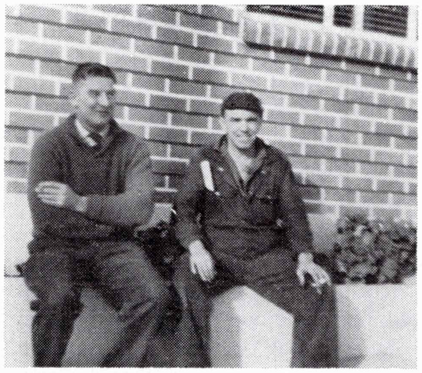
Mr McGhie recalls that at the time there were many Welsh miners at Stockton. The Vice-Regal couple received a warm welcome which was made even warmer when Lady Bledisloe led the singing of the Welsh national anthem.

Included in the group, from left, are: John Corcoran, who retired to Granity; James Haddow, of Westport; Jim ——, who went back to England; Tom Hutt(?), of Westport; —— Parfitt, deceased; Bill Miller, a surveyor at Granity; —— Nicolas, who was later killed in the mine; Ivor Tyler; James Campbell, electrician; John Corcoran, Jun., who is still at Stockton.

The picture was taken five and a half miles from the Top Break at Stockton. The men are leaving for the afternoon shift. Mr McGhie wears a suit.

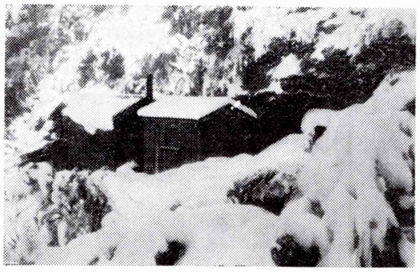


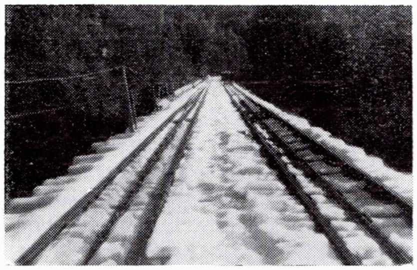
OHAI NEWS—(Contd.)

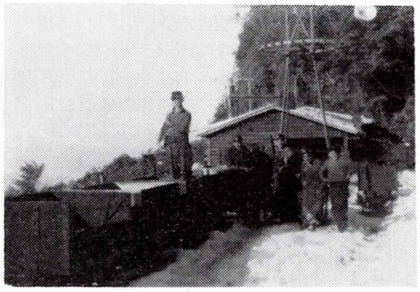

Mr Hill and Mr Fenton just before leaving on their islands cruise.

Our Ohai correspondent, Robyn Palmer, collects the morning tea milk while out gathering news for Coal magazine.

— GREY —


At the mine mouth snow was 18 inches deep.


Snow lies to a depth of 15 inches on the viaduct. All rails had to be cleaned before the haulage rope could be started.


Rope boys cleaning rails at Middle Flat. From left, A. Shaw, N. Schoefield, A. Adamson, L. Allan, M. Smith, W. Dickson.

We've seen some pictures of Roa but nothing like these before. On June 29 Roa experienced one of the heaviest falls of snow in its history. Snow fell for three days and at the mine mouth it was 18 inches deep.

Pictures show the scene at the mine mouth with its mantle of white; the viaduct where all rails had to be cleaned before the haulage rope could be started; and the rope boys cleaning rails at the middle flat.

Our thanks to Mr D. M. McFadyen for these photos.

— OHURA —

Outdoor bowls results in the Championships were: Women's Singles, E. Kerry; Women's Pairs, D. Boyd, G. Hennessey; Rinks, J. Bullock, E. Wind, M. McCarthy, E. French; Men's Singles, J. Wilson; Men's Pairs, N. French, D. Cairns; Rinks, R. Boyd, J. Blyth, J. Bullock, F. Hennessey; Handicap Singles, G. Woods.

Indoor Bowls: Men's Singles, N. French; Women's Singles, Mrs D. Boyd; Pairs, Mrs V. Keane and Fr. Quinn.

In Badminton, Miss Heather Wallace won the Open Singles Championship against competition from Wanganui, Wellington and King Country.

Debutantes presented to Archdeacon Leggett at the Anglican Ball in May were Misses Patsy Woodney, Gaye Watts and Anne Bunn.

Congratulations to Mr and Mrs Tim Borthwick on the birth of a daughter, Mr and Mrs John Corban a daughter, and Mr and Mrs Bob Lockey a son.

Mr and Mrs J. A. Barry recently announced the engagement of their daughter Anne to Ben Richardson. Congratulations to the young couple.

Staff changes at Ohura are: Myrna Koorey, who has gone to Auckland; Brian Pilkinton, who is trying his luck in Australia; and Bob Gregory, who has left for Ohai. Frank McGirr and Rowen Calcott are now in the Huntly district.

Welcomed to the staff at Ohura are Mr D. White, Mrs V. Keane and Miss A. Barry.

Congratulations also to Mr and Mrs Kevin Flavell on their recent marriage.

MINERS' RETIRING ALLOWANCES

In future all applications for Miners' Retiring Allowances MUST be accompanied by the form I.R.55 completed by applicant.

This does not apply to applications by widows.

OBITUARY

The Industry records with regret the following deaths since the December 1960 issue (years of service in parentheses):—

K. Todd, Greymouth (13), J. McKechnie, Granity (42), R. Osborne, Glen Afton (25), W. J. Airns, Dunollie (32), W. J. Marshall, Dunollie (30), C. G. Waters, Runanga (21), W. T. Lloyd, Nightcaps (41), J. W. Prescott, Runanga (27), Tommy Pinga, Ngaruawahia (13), H. M. Hansen, Kaitangata (45).

RETIREMENTS

Retirements from the Industry since the December, 1960, issue of "Coal" (with years of service in parentheses) are:—

J. A. Green, Huntly (33); H. K. Pinn, Runanga (33); C. Hart, Nelson (40); W. Armstrong, Runanga (30); T. Needham, Huntly (30); F. Meadowcroft, Blackball (45); G. Wilson, Huntly (30); G. Lee, Nightcaps (38); T. W. Grace, Millerton (41); R. Harker, Millerton (40); J. A. Hambleton, Huntly (38); M. E. Hunter, Rotowaro (33); A. Lawson, Pukemiro (33); W. R. Smith, Runanga (51).

William Robert Smith was 65 on 29/12/1960 and retired on 23rd January, 1961, after 51 years' service. He worked at No. 1 State Mine from 1909 to 1925, Castle Point Co-op. Mine from 1925 to 1942 and Strongman Mine from 1942 to 1961. A good record of service and "Coal" wishes him well in his retirement.

J. L. Webster, Christchurch (46); G. Flannigan, Millerton (38); J. M. Wilson, Huntly (35); R. Swan, Granity (37); H. F. Nelson, Westport (40); H. O'Callaghan, Huntly (28); T. Whiu, Huntly (33); J. Summers, Stockton (40); W. R. Bell, Runanga (32); L. J. Whitford, Huntly (22); F. W. Johnson, Kaitangata (45); T. McNeill, Ohai (29); F. Jenkins, Stockton (41); J. B. Elms, Huntly (30); J. McFarlane, Taylorville (25); H. W. Budd, Huntly (10); J. Peden, Huntly (36); S. E. J. Braggins, Denniston (40); T. M. Boyd, Blackball (40); G. Kerr, Huntly (34); H. C. Stewart, Westport (46); R. Clarke, Glen Afton (38); F. Owen, Glen Massey (24); F. Crook, Christchurch (39); A. W. Foster, Cobden (22); W. McVicar, Christchurch (30); J. W. Uren, Kaitangata (36); W. R. H. Reeve, Reefton (23); R. L. Hodgson, Blackball (45); E. P. Stack, Westport (48); J. Braidwood, Kaitangata (36); H. Duggan, Runanga (45); G. W. Smith, Glen Massey (32); J. Neilsen, Christchurch (46); C. J. Cartman, Glen Afton (22); F. Carson, Kaitangata (62); H. J. O'Neill, Runanga (27); A. E. Keepin, Taupo (48); A. E. Howard, Granity (19); L. J. Ford, Christchurch (21); A. E. Ekland, Reefton (42); C. H. Clarke, Kaitangata (32); W. Henderson, Dunollie (33); J. Tait, Huntly (33).

FREDDIE CROOK RETIRES

A popular figure amongst the mining fraternity, Mr Fred Crook, retired in May, so we approached Tony Prendiville for a short write-up for Coal Magazine.

"Give him the finest write-up you can," said Tony enthusiastically. "He's done a splendid job."

Fred's resignation was accepted with the greatest regret, as he had given unselfish and devoted service for over 35 years and was held in the highest esteem throughout the whole trade union movement of New Zealand. He was secretary of the United Mineworkers for 18 years, president of the Otago Miners' Union for many more, and a great number of the improvements around the mines have been due to his activities.

He was a member of the International Executive of the Miners Federation and acted as chairman on several occasions. He represented N.Z. miners as delegate to Australian conferences and was on the National Council for Aid to Britain.

Fred's work has now been taken over by Mr Jock White of Taylorville.

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A NEW ERA IN FUEL SALES

(*continued from page* 8)

Costs. This is a very contentious item, yet Kari-Pak costs no more in proportion than any other prepacked commodity like sugar, tea, butter, tobacco, beer. Any article you like to mention costs more when prepacked in the smaller packs.

I can remember my mother buying a ton of coal and 50lb of flour, but this is not so today. People have turned to smaller packs of these commodities. Who today would buy a sack of sugar or a ton of coal? I feel sure that the day is not far away, within the next five years, when we shall see few 100lb packs of fuel sold.

We have had our warning from the paying public that they will not put up with a hit-and-miss delivery system. They want what they want and how they like it. Don't be like the old-fashioned coal dealer and deliver coal when and how you can. In the rush period it was physically impossible to deliver all orders, and in any case, he always seemed either to have too many or too few orders.

This way, with 700 agents throughout the suburbs, each grocer has to sell only two dozen packs a week to make a huge total. What a blow to alternative forms of heating! Despite a mild winter in Auckland, our sales have been substantially up on last year despite strong competition.

Kari-Pak is here to stay. Sales will grow in volume as the public learns to appreciate its value. We have the ball at toe and will make sure to put our best foot forward and help this young giant on his way.

THAT PHOTO!

We knew it would happen. Dr Val. Armstrong writes from the New Zealand Scientific Office in London to let us know that our list of names for the working bee at Rapahoe Beach credited him with two mothers—Mrs Ethel and Mrs Val Armstrong. "For all my life," writes Dr Armstrong, "these two have been, in fact, one and the same person—my mother."

It seems certain that both Val Armstrong and his father, Wally (Val) Armstrong, are in the picture. Val is probably the boy in the white shirt on the right of Archie Boddy and just in front of Jackie Masters.

Val Armstrong concludes his letter: "It is now thirty years since I left the Coast to go to Canterbury University College, and it gave me a great deal of pleasure to see the names of so many old friends. It brought back many memories of Runanga."

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RELICS OF THE PAST

(*continued from page* 25)

While I was at Granity District High School our class was taken to the Granity bins to be shown something of interest in the past. Drawn to our attention was one of the original mail vans which were used for carrying mail from Granity to Millerton in the early days of mining, and later to carry mail to the Mine Creek and Mangatini townships until these were later abandoned in the early 1920s. Looking at the insignia on the van I was reminded of an old saying: "Keep an article for seven years and a use will be found for it."

One of the most terrifying thoughts today is that the Buller's biggest export is population, and if something is not done about this soon, it will not only be just a few townships, but the whole of the Buller could be labelled as a ghost town.

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Another new chum approached the boss at the mine and asked for a job. He was asked if he could run mullock (meaning stones) and was told to come back next day and he would get a start. He replied, "I don't need a start. I'll run him off scratch."

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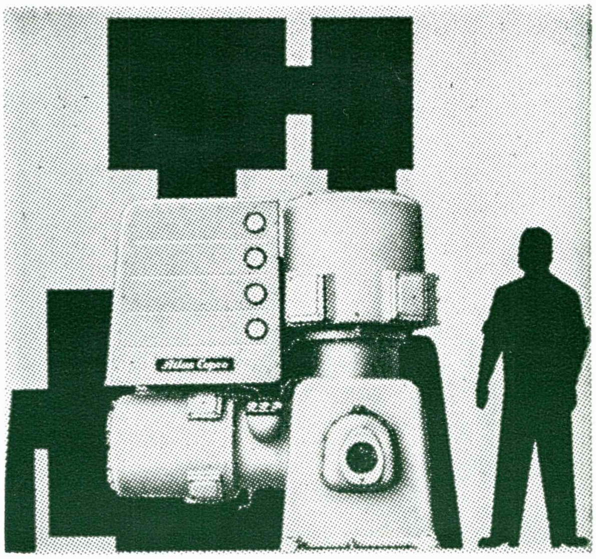
WEAR YOUR HELMET!

or your dreams may never come true.

New Compressor Design

Saves space - reduces running costs

The Atlas Copco ER6 is a new stationary compressor which uses fundamental improvements in design to achieve remarkable results in performance and efficiency. The illustration shows the size of the ER6 compared with a conventional compressor of similar output; yet this extraordinary saving in space achieved with added efficiency and economy.



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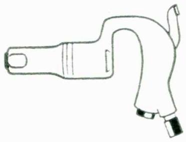
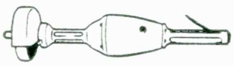

CHIPPING HAMMERS

RAMMERS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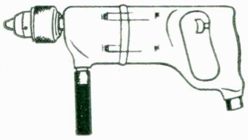
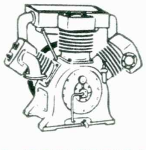
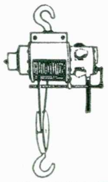
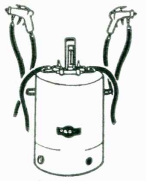

DRILLS

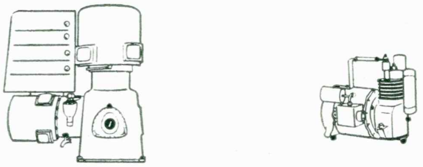
SCREW DRIVERS
and TAPPERS

. . . in all industries


CT6 COMPRESSOR


AIR HOIST


Complete range of
Paint Spray Equipment


Compressors range from 2 cubic feet per minute to 30,000 cubic feet per minute.

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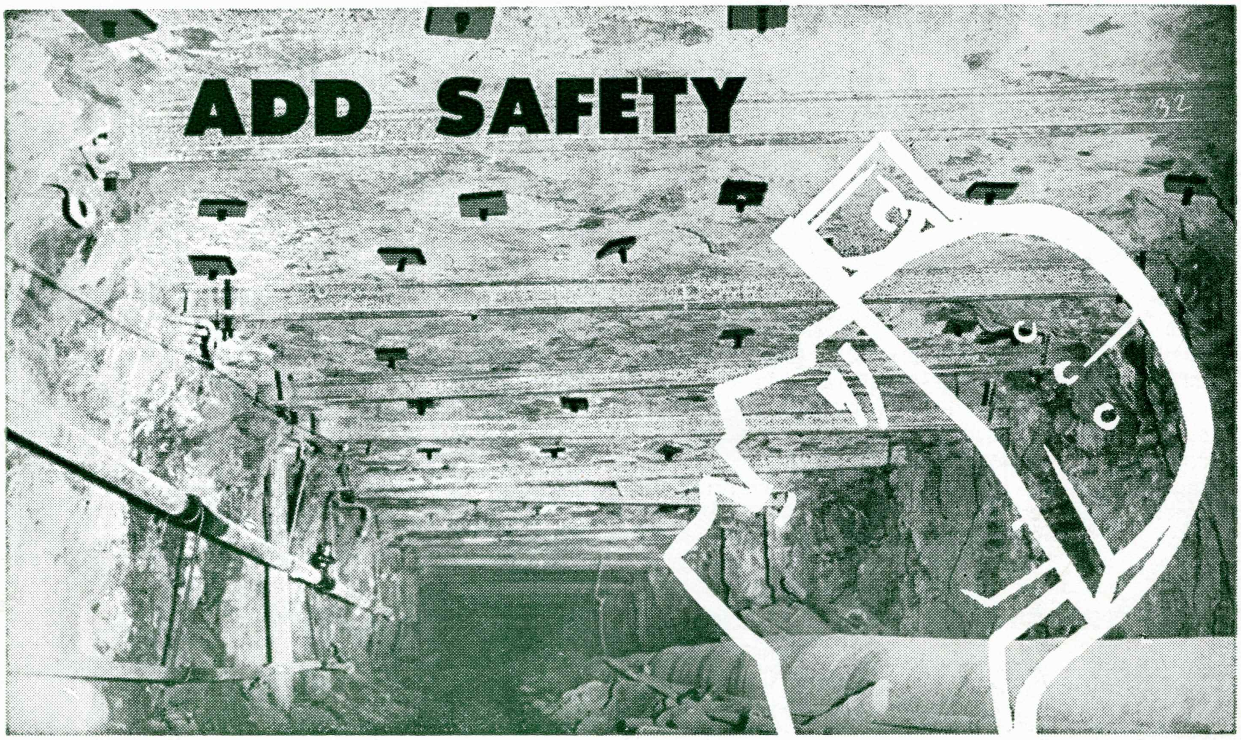

VIEW OF THE KEMIRA TUNNEL

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TITAN ROCK BOLTS

Reduce the risk of rock fall or cave in with Titan Rock Bolts — and "make" more working room with the minimum use of timbering. Titan rock bolts are used extensively throughout Australia in mines and quarries, in private industry and National Works like the Snowy Mountains Project and the Kiewa Scheme in Victoria.

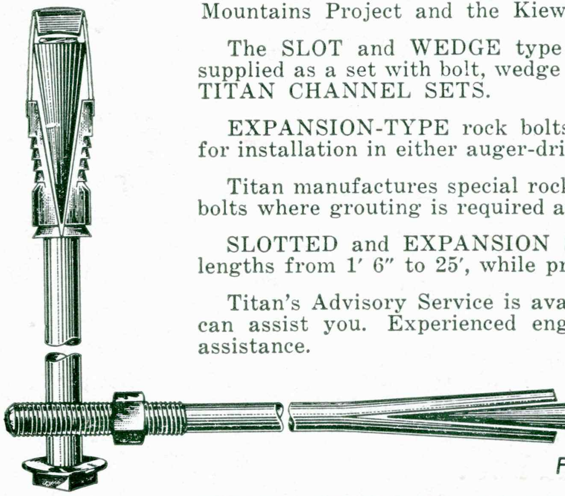
The SLOT and WEDGE type bolt is made from specially selected steel. It is invariably supplied as a set with bolt, wedge and plate washer. A special washer is available for use with TITAN CHANNEL SETS.

EXPANSION-TYPE rock bolts are made from specially selected high tensile steel suitable for installation in either auger-drilled or stoper-driven holes. The hole length need not be exact.

Titan manufactures special rock bolts for specific applications. These include hollow and tube bolts where grouting is required and 1⅛" diameter slotted bolts.

SLOTTED and EXPANSION SHELL type Titan Rock Bolts are available from stock in lengths from 1′ 6″ to 25′, while prompt delivery can be given to orders for special bolts.

Titan's Advisory Service is available on request. Whatever your rock bolting problem, Titan can assist you. Experienced engineers are ready to travel to the job and give on-the-spot assistance.



For further information, write:

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